FILE NOTATIONS

Entered in NID File .....
Location Map Pinned .....
Card Indexed .....

Checked by Chief .....
Approval Letter 10-1-70
Disapproval Letter .....

COMPLETION DATA:

Date Well Completed .....
..... WW..... TA.....
..... OS..... PA.....

Location Inspected .....
Bond released
State or Fee Land .....

LOGS FILED

Driller's Log.....
Electric Logs (No.) .....
E..... I..... Dual I Lat..... GR-N..... Micro.....
MC Sonic GR..... Lat..... Mi-L..... Sonic.....
CBLog..... CCLog..... Others.....

Form DOGC-1a

SUBMIT IN [illegible]PLICATE*
(Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS

5. Lease Designation and Serial No.
Patented

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

6. If Indian, Allottee or Tribe Name

1a. Type of Work
DRILL [X] DEEPEN [ ] PLUG BACK [ ]

7. Unit Agreement Name
Brotherson et al Unit

b. Type of Well
Oil Well [X] Gas Well [ ] Other Single Zone [ ] Multiple Zone [ ]

8. Farm or Lease Name
Brotherson et al

2. Name of Operator
Shell Oil Company (Rocky Mountain Division Production)

9. Well No.
Unit 1-11B4

3. Address of Operator
1700 Broadway, Denver, Colorado 80202

10. Field and Pool, or Wildcat
Altamont (Development)

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface
1520' FNL and 1320' FEL Sec 11

11. Sec., T., R., M., or Blk. and Survey or Area
C NE Section 11-T 2S-R 4W

At proposed prod. zone
NW SENE

14. Distance in miles and direction from nearest town or post office*
2½ miles S-SW of Altamont

12. County or Parrish
Duchesne

13. State
Utah

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any)
200'

16. No. of acres in lease
1126

17. No. of acres assigned to this well
--

18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft.
7900'±

19. Proposed depth
18,000'

20. Rotary or cable tools
Rotary

21. Elevations (Show whether DF, RT, GR, etc.)
6179 GL (Ungraded)

22. Approx. date work will start*
10-15-70

23. PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement

As per attached drilling prognosis and certified survey plat.

If this well is completed as a successful producer, it will be included in a 640-acre unit comprising all of Section 11 pursuant to the spacing rules for the Altamont field.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.
Signed [signature] For: J. C. Howell Title Division Petroleum Engineer Date October 5, 1970

(This space for Federal or State office use)

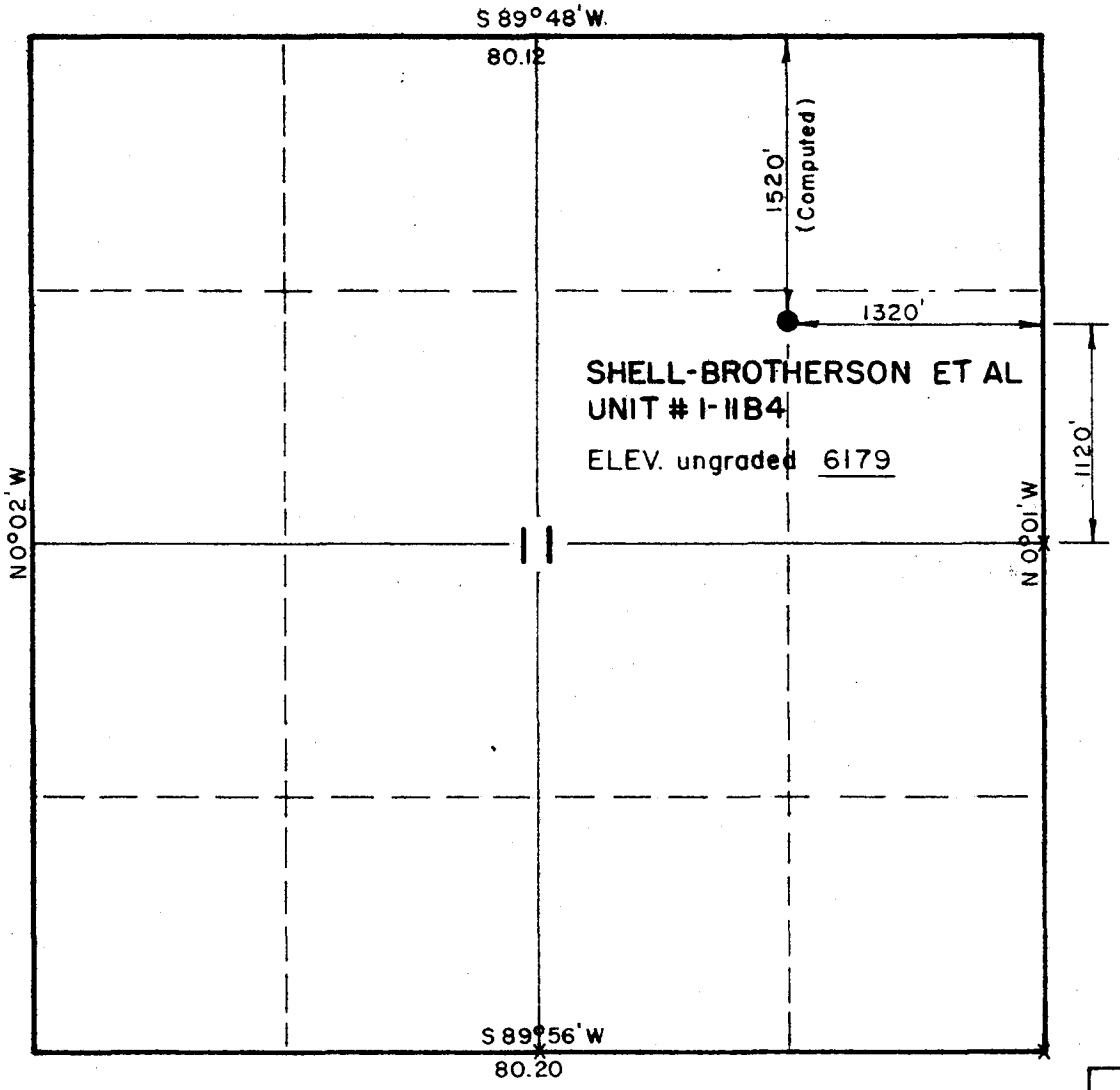
Permit No. 43-013-30052 Approval Date

Approved by Title Date

Conditions of approval, if any:

*See Instructions On Reverse Side

T 2S, R 4W, USB&M



X = Corners Located (Stone)

PROJECT

SHELL OIL COMPANY

WELL LOCATION AS SHOWN IN THE NE1/4, SECTION 11, T 2S, R 4W, USM. DUCHESNE COUNTY, UTAH.

CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Dave Stewart

REGISTERED LAND SURVEYOR
REGISTRATION Nº 3157
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING
P. O. BOX Q — 110 EAST - FIRST SOUTH
VERNAL, UTAH - 84078

SCALE 1" = 1000'	DATE 30 Sept 1970'
PARTY GS-KM-WP	REFERENCES GLO Township Plat
WEATHER Fair & Warm	FILE SHELL OIL CO.

October 8, 1970

Shell Oil Company
1700 Broadway
Denver, Colorado 80202

Re: Brotherson et al Unit 1-11B4
Sec. 11, T. 2 S, R. 4 W,
Duchesne County, Utah
API NO. 43-013-30052

Gentlemen:

Insofar as this office is concerned, approval to drill the above mentioned well is hereby granted in accordance with the Order issued in Cause No. 139-1, dated June 17, 1970.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

PAUL W. BURCHELL - Chief Petroleum Engineer
HOME: 277-2890
OFFICE: 328-5771

This approval terminates within 90 days if the well has not been spudded-in within said period.

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your co-operation with respect to completing this form will be greatly appreciated.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

CLEON B. FEIGHT
DIRECTOR

CBF:sd
Enclosures

Sec. 11 N½S½NE¼ 1520' FNL 1320' FEL	2S	4W	1-11-B4	-	-	-	-	-	Brotherson Lease Drilling - Depth Fee Land	6,510'

M 51 (6-69)

REVISED
DRILLING WELL PROGNOSIS

WELL NAME BROTHERSON 1-11B-4
TYPE WELL DEVELOPMENT
FIELD / AREA ALTAMONT

APPROX. LOCATION (SUBJECT TO SURVEY) C NE SECTION 11-T2S-R4W, DUCHESNE COUNTY, UTAH

EST. G. L. ELEVATION 6180 PROJECTED TD 18,000 OBJECTIVE CRETACEOUS

HOLE SIZE	CASING PROGRAM	LOGGING PROGRAMS	MAX DEV.	DEPTHS AND FORMATION TOPS	SPECIAL INSTRUCTIONS
26"±	20"		½°	100'±	SAMPLES: 30' Sfc to 4500 10' 4500' to TD
17½"	13 3/8"	Two-man logging unit 5000' GR/BHC/FDC/AC/ Cal DTL/PML/SNP TVT	1°/1000'	Green River Zone 1 5150 (+1050) 6500'±	CORES: (5) 60' cores between 5000' and TD DST'S: (8) from 5000' to TD DEVIATION CONTROL Do not exceed dogleg severity of 1½°/1000'
12¼"	9 5/8"		1°/1000'	Green River Zone 2 9260 (-3060) Probable .5 grad. 10,700' (-4500) 12,200'±	CEMENT See casing design MUD Water - As deep as possible up to 8000' Gel/Chemical To transition zone Weighted Gel/Chemical As needed
8 5/8"	7 5/8" FJ		1°/1000'	Equiv. to Miles TD 12,300' (-6100) 14,000'±	
6½"	5½" or 5" FJ If Needed			TD 18,000	See "Mud Program" for further details

ORIGINATOR DES & JRS DATE 10/13/70

ENGINEERING APPROVAL: DES JRS

EXPLOITATION [signature] 10/15/70

MECH. [signature] 10/15/70

OPERATIONS APPROVAL:

[signature]
DIV. DRILLING SUPT.

M 51 (6-69)

REVISED

DRILLING WELL PROGNOSI

WELL NAME: BROTHERSON 1-11B-4
TYPE WELL: DEVELOPMENT
~~FIELD~~ / AREA: ALTAMONT

APPROX. LOCATION (SUBJECT TO SURVEY) C NE SECTION 11-T2S-R4W DUCHESNE COUNTY, UTAH

EST. G. L. ELEVATION 6180 PROJECTED TD 18,000 OBJECTIVE CREATACEOUS

HOLE SIZE	CASING PROGRAM	LOGGING PROGRAMS	MAX DEV.	DEPTHS AND FORMATION TOPS	SPECIAL INSTRUCTIONS
				26" to 40± (Min 30')	
17½	13-3/8		1½°	500'	SAMPLES: 30' Sfc to 4500 10' 4500' to TD
12¼	10-3/4	Two man logging unit 5000'	1°/1000'	Green River Zone 1 5150 (+1050) 8000'	CORES: (5) 60' cores between 5000' and TD DST'S: (8) from 5000' to TD DEVIATION CONTROL Do not exceed dogleg severity of 1½°/1000' CEMENT See casing design
9-5/8	8-5/8 FJ	GR/BHC/FDC/AC/ Cal; DIL/PML/SNP; TVT	1°/1000'	Green River Zone 2 9260 (-3060) Probable .5 grad. 10,700' (-4500) 12,200	MUD Water As deep as possible up to 8000' Gel/Chemical
7-5/8	5½		1°/1000'	Equiv. to Miles TD 12,300' (-6100) TD 18,000	To transition Zone Weighted Gel/Chemical As needed

ORIGINATOR LAP DATE 9-1-70

ENGINEERING APPROVAL: JSB

EXPLOITATION

MECH. 10/5/70

OPERATIONS APPROVAL:

DIV. DRILLING SUPT.

M 51 (6-69)

REVISED
DRILLING WELL PROGNOSIS

WELL NAME BROTHERSON 1-11B-4
TYPE WELL DEVELOPMENT
FIELD / AREA ALTAMONT

APPROX. LOCATION (SUBJECT TO SURVEY) C NE SECTION 11-T2S-R4W, DUCHESNE COUNTY, UTAH

EST. G.L. ELEVATION 6180 PROJECTED TD 18,000 OBJECTIVE CRETACEOUS

HOLE SIZE	CASING PROGRAM	LOGGING PROGRAMS	MAX DEV.	DEPTHS AND FORMATION TOPS	SPECIAL INSTRUCTIONS
26"±	20"	Two-man logging unit	½°	100'±	SAMPLES: 30' Sfc to 4500 10' 4500' to TD
17½"	13 3/8"	Two-man logging unit	5000' 1°/1000'	Green River Zone 1 5150 (+1050) 6500'±	CORES: (5) 60' cores between 5000' and TD DST'S: (8) from 5000' to TD DEVIATION CONTROL Do not exceed dogleg severity of 1½°/1000'
12¼"	9 5/8"	GR/BHC/FDC/AC/ Cal; DIL/PML/SNP	1°/1000'	Green River Zone 2 9260 (-3060) Probable .5 grad. 10,700' (-4500) 12,200'±	CEMENT See casing design MUD Water - As deep as possible up to 8000' Gel/Chemical To transition zone Weighted Gel/Chemical As needed
8 5/8"	7 5/8" FJ	GR/BHC/FDC/AC/ Cal; DIL/PML/SNP; TVT	1°/1000'	Equiv. to Miles TD 12,300' (-6100) 14,000'±	
6½"	5½" or 5" FJ If Needed	GR/BHC/FDC/AC/ Cal; DIL/PML/SNP; TVT		TD 18,000	See "Mud Program" for further details

ORIGINATOR DES & JRS DATE 10/13/70

ENGINEERING APPROVAL: DES JRS

EXPLOITATION D. C. Howell 10/15/70

MECH. [signature] 10/15/70

OPERATIONS APPROVAL:

[signature]
DIV. DRILLING SUPT.

1466' FNL 1503' FEL									wellhead Fee Land
Sec. 11 N½S½NE¼ 1520' FNL 1320' FEL	2S	4W	1-11-B4	-	-	-	-	-	Brotherson Lease Drilling Depth 10,812' Fee Land
Sec. 14 SW¼SE¼NE¼ 2100' FNL 750' FEL	2S	4W	1-14-B4	-	-	-	-	-	Brotherson Lease Drilling Depth 9,812' Fee Land

Note: There were 36,823 runs or sales of oil; 0 M cu. ft. of gas sold. 0 runs or sales of gasoline during the month.

NOTE: Report on this form as provided for in Rule C-22. (See back of form.)

FILE IN DUPLICATE

*STATUS: F-Flowing P-Pumping GL-Gas Lift
SI-Shut In D-Dead
GI-Gas Injection TA-Temp. Aban.
WI-Water Injection

LAST MONTH

1971			June			1971
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

1971			JULY			1971
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

NEXT MONTH

1971			August			1971
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

SAT.—SUN. JULY—AUG.

31-1

AL Nickles - 2 miles
TD 1-11 17,766
test Allen case 15,454
PD to Green River wasatch
Plug 16,005 w 100 sax
another 100 sax at base of
casing

7/31/71 8/1/71

From Shell Oil Co.
Rocky Mtn Div Production

PK

Attached are two copies of the
Revised Drlg Prognosis on
the Brotherson 1-11B4
C NE Sec 11-T2S-R4W
ALTAMONT
Duchesne County, Utah

Al Neckles — Shell attament 7/31/71

1-11

T.D. 17,766

Top of K - 17050

15554 - 7 5/8" Casing

Model D Packer @ 15513

tested everything below

open 30 Minits small blow

Come up & test

(1) open end drill pipe and stab into packer

(2) put 50 sks at base of casing at shoe by stinging in packer
& 50 sks above packer.

No fluid below 15513

~~above~~ others

~~will~~ then test 3 upper zones.

1-26 → ~~tested~~ 1070 bbl oil flow

Christensen - ~~than~~ ~~2~~ 11 1-11 20 deeper - ≈ 16,000'

PMB

Form OGCC-3

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN DUPLICATE* (See other instructions on reverse side)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other

2. NAME OF OPERATOR: Shell Oil Company (Rocky Mountain Division Production)

3. ADDRESS OF OPERATOR: 1700 Broadway, Denver, Colorado 80202

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 1520' FNL and 1320' FEL Sec 11
At top prod. interval reported below
At total depth

5. LEASE DESIGNATION AND SERIAL NO.: Patented

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME: Brotherson et al Unit

8. FARM OR LEASE NAME: Brotherson

9. WELL NO.: 1-11B4

10. FIELD AND POOL, OR WILDCAT: Altamont

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: C NE Section 11-T 2S-R 4W

14. PERMIT NO. / DATE ISSUED

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
10-20-70	7-27-71	8-29-71	6179 GL, 6198 KB	21'

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
17,766	14,680 (CIBP)		→	Total	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

25. WAS DIRECTIONAL SURVEY MADE: Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: DIL/SP, Int BHCS/GR/Cal, PL/ML/CAL, SNP/GR/CAL, NML, PML, Experimental Circumferential Microsonic

27. WAS WELL CORED: Yes

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
20"	94#	100'	24"	145 sx	0
13 3/8"	68#	6,502'	17½"	1800 sx	0
9 5/8"	47#	11,599'	12¼"	595 sx	0

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
7 5/8"	11,303	15,453	680	

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (*Interval, size and number*)

As per attachments

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
8-29-71	Flowing	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
11-14-71	24	31/64"		1512	2316	65	1532

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
850	0		1532	2316	65	42° API

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS: Well Log and History, Csg and Cmtg details

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED [signature] TITLE Division Operations Engr. DATE December 3, 1971

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES				38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH

WESTERN E&P REGION
LINER CEMENT JOB

Lease: Brotherson
Well: 1-11B4
Date: 6/12/71
Size Casing: 7 5/8, 39#
Setting Depth: 15,453'
Top (liner): 11,305'
Hole Size: 8 5/8"
Mud Gradient: .754
Viscosity: 50

Casing Equipment

T.I.W. Fillup shoe, T.I.W. fillup landing collar located 15,338 feet above shoe.

Three centralizers located 15,433-15,395-15,355.

Liner hanger and pack off (describe) T.I.W. type LG-6 setting collar T.I.W. liner hanger - T.I.W. liner swivel.

Cement (around shoe)

	No. Sacks	Brand	Type	Additives	Slurry Weight	Slurry Volume
(1)	50	Ideal	"G"	75-25 poz.	13.5	11 bbls
(2)	630	Ideal	"G"	10% salt, 30% silica 1% CFR-2 .5% HR-4	15.8	184 bbls.

Cementing Procedure (around shoe) (cross out where necessary)

Circulated 150 minutes, pumped in 11, barrels 75-25 poz prewash, used bottom plug (no), mixed cement (1) above 2 minutes, cement (2) above 35 minutes, top plug (yes) displaced with 372, barrels in 105 minutes at rate of 4 to 2 BPM. (Bumped plug). Final Pressure 1000 PSI. Reciprocated pipe no feet while (mixing) and (displacing) cement. Displacing time 105 minutes. Had full circulation. Completed job at 9:35 p.m.

Remarks

Pick up liner plug w/200 bbls - plug down w/372 bbls. Pipe pulled dry.

W. T. Rodgers
Foreman

CASING AND CEMENTING

Field: Altamont Well: Brotherson 1-11B4 KB to CHF: 21'

Shoe joint started in hole at 5 a.m. 6/12/71.

Ran 114 jts. JL-95 R3 Hyd SFJ 7 5/8" liner to 15,453'.

Jts.	Wt.	Grade	ST&C LT&C	New	Feet	From	To
114	39#	JL-95	SFJ Hyd		4,150	11,303	15,453

114 Jts. Total

T.I.W. Collar at 15,338
T.I.W. Shoe at 15,453

No. Make & Type:

3 B&W centralizers spaced 20' from 15,453-15,433; spaced 38' from 15,433-15,395; and 40' from 15,395-15,355.

Cementing: Broke circulation at 4 p.m. w/400 psi. Reciprocated and circulated 150 min. With 2 BW ahead, cemented through shoe at 15,453' with 630 sx Ideal "G" cement, 30% Silica, 10% salt, 1% CFR-2, .5% HR-4. Wt. 15.8#/gal. Mixing complete in 35 min. Pressure: Max 800. Plug down 9:35 p.m. 6/12/71 w/1000 psi. Bled back 0 bbls.

CASING AND CEMENTING

Field: Altamont Well: Brotherson 1-11B4 KB to CHF: 23.00'

Shoe joint started in hole at 5:00 a.m. 12-22-70.

Ran 159 jts. 13 3/8" smls, 8rd casing to 6502.00'

Jts.	Wt.	Grade	ST&C LT&C	New	Feet	From	To
1	68	K-55	ST&C	New	11.25	0	34.25
3	68	S-80	ST&C	New	95.12	34.25	129.37
16	68	K-55	ST&C	New	634.05	129.37	763.42
		Baker Stage Collar			2.30	763.42	765.72
68	68	K-55	ST&C	New	2,751.86	765.72	3,517.58
69	68	S-80	ST&C	New	2,895.68	3,517.58	6,413.26
		Baker Diff. Fill-up Float Collar			1.90	6,413.26	6,415.16
2	68	S-80	ST&C	New	85.49	6,415.16	6,500.65
		Baker Guide Shoe			1.35	6,500.65	6,502.00

159 Jts. Total

Baker Stage Collar at 763.42
Diff. Fill Float Collar at 6,413.26
Guide Shoe at 6,500.65

No. Make & Type:

5 B&W centralizers spaced at 6494', 6458', 6370', 6285' and 771'. 2 Baker cement baskets at 806' and 844'.

Cementing:

Broke circulation at 10:00 p.m. 12-22-70 at 500 psi. Reciprocated and circulated 120 min. With 40 bbls water ahead, cemented through shoe at 6502' with 500 sx 1:1 pozmix cement, 2% gel and 300 sx Class "G" w/5# D-82 and .3% D-13. Wt. 14.1 and 15.8#/gal. Mixing complete in 25 min. Pressure: max 0; min. 0; avg 0. Plug down 2:20 a.m. 12-23-70. Pressure: max 750; min 0; avg - . Pressure to 1500 psi in 130 min. Bled back 5 bbls. Circ'd 8 hrs between stages. 2nd stage through stage collar at 763' w/1000 sx Class "G" w/2% $CaCl_2$. Plug down at 12:55 p.m. 12-23-70. Good returns on both stages.

CASING AND CEMENTING

Field: Altamont

Well: Brotherson 1-11B4 KB to CHF: 21.00'

Shoe joint started in hole at 9:00 p.m. 3/4/71.

Ran 275 jts 9 5/8", Smls, 8rd casing to 11,599'.

Jts.	Wt.	Grade	ST&C LT&C	New	Feet	From	To
155	47	P-110	LT&C	New	6,662.22	0	6,683.22
116	47	S-95	LT&C	New	4,757.74	6,683.22	11,440.96
2	47	S-95	ST&C	New	77.79	11,440.96	11,518.75
Halliburton Flapper Type Float Collar					1.13	11,518.75	11,519.88
2	47	S-95	ST&C	New	77.48	11,519.88	11,597.36
Halliburton Flapper Type Float Shoe					1.64	11,597.36	11,599.00

275 Jts Total

Float Collar at 11,518.75
Float Shoe at 11,597.36

No. Make and Type:

8 B&W Centralizers: Spaced @ 11,591', 11,558, 11,512, 11,440, 11,359, 11,281, 11,197, and 11,114.

Cementing:

Broke circulation at 11:45 a.m. 200 psi. Circulated 240 min. With 40 bbls mud ahead, cemente through shoe at 11,599' with 425 sx 13.1#/gal Hal. lite cement, 1/8#/sx Nylon Fibers, & 3/4% CFR-2 followed by 170 sx Class "G" Neat, 18% salt, w/1/8# Nylon Fibers, 1% CFR-2 & .2% HR-4 @ 15.7#/gal. 40 bbls mud were treated w/100# bi-carb and 4 sx Unical for flush mud. Wt. 13.1#/gal. Mixing complete in 35 min. Pressure: Max 200; min 0. Plug down 7:45 p.m. 3/5/71. Pressure: Max 1,000; min 0. Pressure to 1,000 psi in 255 min. Bled back 3/4 bbl.

Note: Did not bump plug because bottom plug was not used. Pumped 6 bbls over calculated displacement.

UTAH

ALTAMONT
Shell-Brotherson et al Unit 1-11B4
(D) Noble
18,000' Cretaceous Test

"FR" MIRT.
Located 1520' FNL and 1320' FEL
Section 11-T2S-R4W, Duchesne County, Utah
Elev: 6179 GL (Ungraded)
18,000' Cretaceous Test
Shell Working Interest - 100%
Drilling Contractor - Noble
Well is designed to test Base of Green River and Wasatch formation down to top of Cretaceous at an intermediate location between Miles 1-35A4 and the Brotherson 1-23B4. OCT 9 1970

Shell-Brotherson et al Unit 1-11B4
(D) Noble
18,000' Cretaceous Test

MIRT. OCT 12 1970

Shell-Brotherson et al Unit 1-11B4
(D) Noble
18,000' Cretaceous Test

MIRT. OCT 13 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

Prep to spud. Cmt 30" conductor pipe at 14'. OCT 14 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

RURT; prep to spud. OCT 15 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

RURT: prep to spud. OCT 16 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

Drilling rat hole. OCT 19 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

32/205/1/32. Drilling. Spudded 12¼" hole 4:30 a.m. 10/20/70.
Mud: Native. OCT 20 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

72/205/2/40. Drilling.
Bit #1 12¼" Hughes WD7. Made 40' in 11 hrs. Bit condition T-6, B-4. OCT 2 1 1970
Mud: 8.9 x 76.

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

107/205/3/35. Opening hole. Opened 12¼" hole to 17½" to 75'.
Mud: 8.9 x 65 (gel and water). OCT 2 2 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

107/205/4/0. Nippling up. Opened 29' 17½" hole to 24" to 104. Ran and cmt 3 jts (99') 94# H-40 ST&C 20" csg at 100' (1' below KB - unable to get csg to bottom) w/145 sx Class "G", 2% $CaCl_2$, 3% salt. Good circ throughout job. Did not get cmt to return to sfc. Located cmt at 58'. Recemented through 1" pipe w/150 sx Class "G", 2% $CaCl_2$. Good cmt to sfc. Cmt in place 2 a.m. 10/23/70. OCT 2 3 1970.
Mud: 9.0 x 65 (gel and water).

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

1532/205/7/1425. Drilling. Dev: 1¼° @ 1067, & 3/4° @ 1253.
Nippled up Grant rotating head.
Bit #6 12¼" Reed YT3J out at 1370. 513' in 10 hrs.
Condition of bit - T-3, B-4, I.
Mud: Native. OCT 2 6 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

2222/205/8/690. Drilling. Dev: ¼° @ 1750, & ½° @ 1935.
Bit #7 12¼" OSC3J 565' in 13 hrs. Bit condition T-5, B-6.
Hole is taking fluid.
Mud: Native. OCT 2 7 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

2685/205/9/463. Drilling. Dev: ¼° @ 2275.
Bit #8 12¼" Hughes X3J out at 2370. 435' in 15 hrs.
Bit condition T-5, B-1, I.
Mud: Native. OCT 2 8 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

3085/205/10/400. Drilling. Dev: 0° @ 2776.
Bit #9 12¼" Reed STIAGJ out at 2776. Bit condition T-4, B-2.
Mud: Water. OCT 2 9 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

3415/205/11/330. Drilling. Dev: ½° @ 3341.
Bit #10 12¼" S-33 out at 3341. 569' in 29 hrs.
Bit condition - T-4, B-1. OCT 3 0 1970
Mud: Native.

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

4407/205/14/992. Drilling. Dev 3/4° @ 4165.
Bit #12 12½" Hughes OSD3 out at 6145'. Made 450' in 28½ hrs. T-5, B-4. NOV 2 1970
Mud: Native.

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous
Test

4665/205/15/258 Drilling. Dev: 1/2° @ 4665.
Bit #13 12¼" Reed YT1A out @ 4665. 500' in 33 hours.
T-5, B-6.
Mud: Native NOV 3 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous
Test

4950/205/16/285. Drilling.
Bit #14 12¼" OSC1G out at 4950'. Made 295' in 20 hrs.
Mud: Native. NOV 4 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous
Test

5136/205/17/186. Drilling. Laid down DP.
Picked up DP and changed from wtr to mud at 4950.
Mud: 9.0 x 34 (gel and wtr). NOV 5 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous
Test

5298/205/18/162. Tripping. Dev: 3/4° @ 5223.
Bit #16 12¼" Hughes ODV out at 5298. Made 75' in 9 hrs.
Mud: 9.1 x 34 x 24. NOV 6 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

5767/205/21/469. Drilling.
Pulled out of hole for cracked pin on 9" DC's.
Mud: 8.9 x 35 x 14.8 (1336 ppm) (gel 5&8) (plastic vis 11) (yield point 8) (solids 4.5%) (sd ¼%). NOV 9 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

6002/205/22/235. Drilling.
Mud: 8.9 x 36 x 18 (750 ppm) (gel 11&18) (plastic vis 9) (yield point 11). NOV 10 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous
Test

6182/205/23/180. Tripping.
Mud: 8.9 x 39 x 12.4 (sal 1300) (gel 4&12) (plastic vis 10) (yield point 10). NOV 11 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

6330/205/24/148. Drilling. Dev: 3° @ 6182.
SLM 6182 = 6187 (made 5' correction)
Mud: 8.8 x 38 x 13.6 (1006 ppm) (gel 3&11) (plastic vis 10) (yield point 8) (solids 4) (sd 0). NOV 12 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

6510/205/25/180. Tripping. Logging TD reached 12:30 a.m. 11/13/70.
Mud: 8.8 x 58 x 10.6 (sal 990) (gels 4 & 14) (plastic vis 11) (yield point 8). NOV 13 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

6510/205/28/0. Reaming 17½" hole at 714'.
Dev: 3½° @ 6510. Made trip out and attempted to log; unable to log below 3711. Went in hole w/bit and circ 1½ hrs. Pulled out and RU Schl. Finished logging 5 p.m. 11/14/70. Ran logs as follows: DIL/SP, Int BHCS w/GR and Cal, PL/ML. Picked up BHA and began reaming at 7 p.m. 11/14/70 at 107'. NOV 1 6 1970
Mud: 8.4 x 29.

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

6510/205/29/0. Reaming at 1068'.
Mud: 8.9 x 29 (Wtr) NOV 1 7 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

6510/205/30/0 Reaming @ 1354'.
Mud: 8.4 x 29 NOV 1 8 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

6510/205/31/0 Reaming at 1694'. Checked DC's and found in good condition. NOV 1 9 1970
Mud: 8.5 x 29

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

6510/205/32/0. Reaming at 2022.
Both pumps 68 strokes - 1 has 6" liners, other has 6½". 16" strokes - 900 psi. 3/4" nozzle. Bit wght - 15-20,000#. 135 RPM.
Bit #22 No. 4 17½" reamer - Smith pilot in at 1323, out at 1810. 487' in 30 hrs. Dull and loose.
Bit #23 No. 5 17½" reamer - Security went in at 1810.
Mud: 8.5 x 29 NOV 2 0 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test

6510/205/35/0. Reaming at 3055.
Bit #24 Pilot Reamer No. 5 17½" Security 1810-2063. 253' in 16 hrs. Dull - ¼ out of gauge.
Bit #25 No. 6 Reamer 17½" Security pilot. 3/4 nozzles, 20,000# weight, 135 rpm.
On 11/21/70.
Ran both pumps 1,000# 3/4 nozzles, 25,000# weight, 135 rpm.
Bit #25 in at 2,063, out at 2,495. 432' in 17½ hrs. Worn, loose.
Bit #26 Reamer No. 7 17½" Reed, med hard. In at 2495.
On 11/22/70.
Drlg w/both pumps 1,000# pump press.
Bit #26 in at 2,495, out at 2820. Made 325' in 17 hrs. Dull broken bottom.
Bit #27 Reamer No. 8 17½" Security, medium at 2820.
Mud: 10.9 x 47 x 5.8 (sal 870 ppm) (ph 9) (gels 0&1) (plastic vis 19) (yield point 4). NOV 2 3 1970

Shell-Brotherson No. 1-11B4 (D) Noble 18,000' Cretaceous Test	6510/205/36/0. Reaming at 3400. Running 2 pumps 700# pump press. 3/4" nozzle. Weight on bit 20,000#. RPM 110. Bit #27 Reamer No. 8 17½" Security in 2820 - out 3260. 440' in 23½ hrs. Dull and loose, I. Bit #28 Reamer No. 9 17½" Reed in 3260. Mud: 8.6 x 29. NOV 2 4 1970
Shell-Brotherson No. 1-11B4 (D) Noble 18,000' Cretaceous Test	6510/205/37/0. Washing and reaming at 3200'. Going in hole w/overshot. Opened hole to 3606. Spent 15 hrs reaming shale and fishing. Started out of hole and, with 15 stands out, lost weight. Pulled out; had lost seven 9" DC's and two stabilizers, shock sub, and 17½" Reed hole opener. Top of fish at 3342. NOV 2 5 1970
Shell-Brotherson No. 1-11B4 (D) Noble 18,000' Cretaceous Test	6510/205/42/0. Opening 17½" hole at 4126. Hooked on to fish at 3342. Jarred fish up to 3322'. Spotted 81 bbls Miles #1 crude and jarred fish loose; pulled and rec'd all of fish. Magnafluxed all DC's and subs; found two bad boxes Pulled hole opener #10 17½" Smith six-point leaving one cutter and pin, 1 reamer and pin, lock and 3 washers. NOV 3 0 1970 Mud: 9.3 x 36 (sal 254).
Shell-Brotherson No. 1-11B4 (D) Noble 18,000' Cretaceous Test	6510/205/43/0. Opening 12¼" hole to 17½" at 4312. Mud: 9.1 x 34 (sal 1300) (LCM 0) (Oil 0) DEC 1 1970
Shell-Brotherson No. 1-11B4 (D) Noble 18,000' Cretaceous Test	6510/205/44/0. Opening 12¼" hole to 17½" at 4503. Mud: 9.2 x 37 (sal 1200) DEC 2 1970
Shell-Brotherson No. 1-11B4 (D) Noble 18,000' Cretaceous Test	6510/205/45/0. Making trip at 4673. Pulled Bit #21 - had hole in DP 35 stands down. Mud: 9.1 x 34 (sal 660) DEC 3 1970
Shell-Brotherson No. 1-11B4 (D) Noble 18,000' Cretaceous Test	6510/205/46/0. Opening 12¼" hole to 17½ at 4886. Mud: 8.8 x 52 DEC 4 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous
Test

6510/205/49/0. Reaming 12 1/4" hole to 17½" @ 5264.
Dev: ½° @ 5200'.
Mud: 9.3 x 38 x 15 (sal 920) (LCM 0%) (Oil 0%)
DEC 7 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous
Test

6510/205/50/0. Opening 12¼" hole to 17½" at 5395.
Mud: 9.1 x 35 x 16 (sal 1197) DEC 8 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous
Test
20" csg at 100'

6510/205/51/0. Opening 12¼" hole to 17½".
Mud: 9.1 x 35 (sal 1600) (LCM 0) (Oil 0) DEC 9 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
20" csg at 100'

6510/205/52/0. Opening hole from 12¼" to 17½" @ 5710.
Mud: 9.1 x 38 x 14. DEC 1 0 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
20" csg at 100'

6510/205/53/0. Reaming 12¼" hole to 17½" at 5787.
Mud: 9.1 x 39 x 13.2 (sal 1320) (gels 5 & 13)
(plastic vis 15) (yield point 13) DEC 1 1 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
20" csg at 100'

6510/205/56/0. Tripping out w/12¼" bit.
Ran junk basket to 5787. Rec'd sd and sh boulders.
Ran 17½" hole opener and made 8' of hole. Ran junk basket and rec'd shank and pin. Ran 12¼" bit and CO to 6510, no junk on bottom. DEC 1 4 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
20" csg at 100'

6510/205/57/0. Opening 12¼" hole to 17½" at 5908.
Mud: 9 x 38 x 13 (sal 825) DEC 1 5 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
20" csg at 100'

6510/205/58/0. Tripping for new bit at 6010.
Mud: 9.1 x 42 x 13 (sal 925) DEC 1 6 1970

Shell-Brotherson
No. 1-11E4
(D) Noble
18,000' Cretaceous Test
20" csg at 100'

6510/205/59/0. Opening 12¼" hole to 17½" @ 6075. Spent 3 hrs stringing 10 lines and 3 hrs repairing mud line.
Mud: 9.0 x 39 x 12 (sal 725) DEC 17 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
20" csg at 100'

6510/205/60/0. Opening 12¼" hole to 17½" at 6208.
Mud: 8.9 x 38 x 10 (sal 1000) (oil 0) DEC 18 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
20" csg at 100'

6510/205/63/0. Tripping out w/magnet. Dev: 3 3/4° at 6502. Opened hole to 17½" at 4 a.m. 12-20-70. Ran 12¼" bit to clean hole to fish junk. Ran magnet on run #1. Rec'd 2/3 reaming roller and large amt of small junk.
Mud: 9.1 x 55 x 11.6 DEC 21 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
20" csg at 100'

6513/205/64/3. Running 13 3/8" csg.
With Magnet Run #2, rec'd remainder of reamer roller and hole opener cutter. On Run #3, no recovery. Ran 12¼" bit and made 3' new hole. Cond hole to run csg.
Mud: 9.1 x 57 x 12 DEC 22 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
20" csg at 100'

6513/205/65/0. Circ through stage collar prior to cementing through same.
Ran and cmt 159 jts (6482.70') 68# S-80 K-55 ST&C 8rd thd 13 3/8" csg at 6502' w/500 sx 1:1 poz, 2% gel, followed by 300 sx Class "G" neat w/5# D-82 and .3% D-13 per sx. Plug down on first stage 2:20 a.m. 12-23-70. Good returns throughout. Shoe at 6500.65, differential self-filled float collar at 6413.26, stage collar at 763.42.
Mud: 9.1 x 50 x 11 DEC 23 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
20" csg at 100'

6513/205/66/0. Nippling up. Circ'd stage collar total of 8 hrs. Cmt'd 2nd stage through stage collar at 763.42' w/1000 sx Class "G" neat, 2% $CaCl_2$. Plug down 1:55 p.m. 12-23-70. WOC 12 hrs. Cut off and commenced nippling up. DEC 24 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" csg at 6502'

6513/205/70/0. Press testing and repairing derrick. Strung back from 10 to 8 lines. Magnafluxed DC's, BHA tools and subs. DEC 28 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

9719/205/88/229. Drilling. Dev: 5½° @ 9400.
Mud gradient .442
Mud: 8.6 x 35 x 10.6 (chl 990) JAN 15 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" csg at 6502'

10,097/205/91/378. Tripping in w/DST No. 2. Dev: 7° at 10,060.
Spent 33 hrs for DST No. 2. While making up tools on 1/17/71 damaged Hookwall assembly. Laid down tools and tripped in to condition hole.
Last Bit #36 12¼ Smith 4JS 3 12's nozzle - out at 10,097 for DST No. 2. 607' in 54½ hrs. Condition good. Wt 45,000, 48 RPM, 2500 psi.
Mud gradient - .468 JAN 18 1971
Mud: 9 x 42 x 10

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" csg at 6502'

10,097/205/92/0. Press testing BOP equip.
Spent 9 hrs attempting to run DST #2 - misrun. Attempted to set pkrs from 9901-9940 - hookwall anchor would not set.
11 hrs repair and removing Cameron bushing, 1½ hrs installing new rubbers on rams, and 2½ hrs press testing. (No details on mud properties) JAN 19 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" csg at 6502'

10,130/205/93/33. Drilling.
5 hrs testing BOP equip. Repaired two leaks. Detected small object under check valve on kill line when seals on blind ram rods were in open position. Circ'd 2½ hrs before drlg. 4 hrs installing two valves in flowline for trip tank.
Mud gradient - .478 JAN 20 1971
Mud: 9.2 x 38 x 9.2

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" csg at 6502'

10,277/205/94/147. Drilling.
Mud gradient - .504
Mud: 9.7 x 43 x 10 (chl 950) JAN 21 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" csg at 6502'

10,331/205/95/54. Tripping out for core bble.
Lost 40 bbls mud 8 a.m. to 10 a.m. at approx 10,295 - slow loss. 4 hrs circ & cond hole for core, 3 hrs short trip - 15 stands, 3 hrs circ & cond for trip out for core bbl.
Mud gradient - .535
Mud: 10.3 x 39 x 8.4 (chl 840) (Oil trc) JAN 22 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

10,388/205/98/57. Tripping in w/DST #3. Dev: 5° @ 10,331, 5 3/4° @ 10,386.

Core No. 1 10,331-10,386. Cut and rec'd 55'.

10,331-40 Sh, gry-grn, very finely crystalline to dense w/trc calcite veins, sli micaceous, sli calc, very hd.

10,340-66 Sh, a.a., w/interbedded sh, lt brn, calc, trc fossil frags, hard.

10,366-86 Sh, a. a., w/sh gry-brn, very thinly laminated, dense 10,376-80: Fractures inclined 20° from vertical w/live dk brn to blk oil on fracture faces, yellow brn to yellow nat fluor and good strong cut fluor.

Reamed core hole to 12½". Drld 2' new hole.
Mud gradient .535
Mud: 10.3 x 39 x 8.4 (chl 720) (Oil trc).

JAN 2 5 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

10,388/205/99/0. Pulling DST No. 3.
On bottom testing 8 hrs 20 mins. No problem unseating pkrs. Pulled slow to 9865. Tools began to drag. Worked pipe for 6 stands and a double. Freed at 9278. Pulled tool up to 8538. Darkness prevented reversing out. SD overnight. 10½ hrs waiting til daylight. Moved pipe and kept hole full of mud. Ran 1245' of water cushion.
No mud details.

JAN 2 6 1971

Shell Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

10,396/205/100/8. Drilling.

DST No. 3 10,304-388. 1245' (18 bbls) Water Cushion
15/16" Bottom Hole Choke

Op 20 min Op w/wk blow. Inc to strong in 10 min. Cont inc. No GTS.
SI 120 min. GTS 90 min into shut in.
Op 120 min. Op w/strong blow. GTS imed. Inc to max rate of 37 MCF/D
SI 247 min.

Recovery: 18 bbls Water Cushion
14 bbls Oil (39.7° API @ 60°F)
5 bbls Oil-cut Mud (Rm = 6.0 @ 60°F)

Sample Chamber:
750 psi
1500 cc oil (39.7° API @ 60°F)
4.2 cf gas

Pressures:
Recorder at 10,317', IHP 5461, IFP 674-724, ISIP 5112, FFP 751-1087, FSIP 4650, FHP 5446.

Max Temp. - 182°F.
After pulling DST No. 3, reversed out at 6410.
Lost approximately 80 bbls mud while reversing.
Mud gradient - .525
Mud: 10.1 x 37 x 9.6 (chl 700) (LCM trc)

JAN 2 7 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6,502'

7720/205/79/152. Drilling.
Mud: 8.7 x 33 x 8.4 (sal 720). JAN 6 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

7970/205/80/250. Drilling.
Mud: 8.7 x 36 x 9.6 (sal 685) JAN 7 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

8127/205/81/157. Drilling.
Bit #33 12¼" Smith RB4JS out at 8010; made 460' in 45 hrs.
Mud: 8.7 x 35 x 8.8 JAN 8 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

8764/205/84/637. Drilling.
Dev: 4 3/4° at 8638.
Mud gradient .452.
Mud: 8.7 x 36 x 10 (chlorides 720) JAN 11 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

9056/205/85/292. Drilling.
Mud gradient .452
Mud: 8.7 x 36 x 10 (chl 907). JAN 12 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

9360/205/86/304. Drilling.
Mud gradient - .447
Mud: 8.6 x 36 x 10 (chl 870) JAN 13 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

9490/205/87/130. Circ bottoms up after trip for new bit.
½ hr circ for drilling bait before trip, ½ hr circ bottoms up after trip.
Lyons Bit #35 12¼" Smith RB4JS 1-11 and 2-12's nozzles.
Depth out at 9490 - 852' in 72 hrs. Two seal failures.
Bit weight - 50,000#, RPM 49, 27 psi, SPM 66.
Mud gradient - .447
Mud: 8.6 x 34 x 10.6 (chl 810) JAN 14 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

11,033/205/109/0. Tripping out and magnafluxing DC's. 13½ hrs lost circ. Lost 350 bbls. Mixed full cut volume. Found FL at 390'. Pumped 320 bbls. SD. Rebuilt cut volume. DP stayed full - annulus FL 150'. Circulated slowly, increasing pump strokes to normal. Circulated gas-cut mud out of hole. Tripped out for new bit. FEB 5 1971
Mud gradient-- .582.
Mud: (in) 11.4 (out) 11.2 x 44 x 8.4 (LCM 8%) (Oil 5%)

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

11,089/205/112/56. Prep to pull DST #4. Dev: 4° @ 11,033. While magnafluxing, found one cracked box in third DC from top. 2 hrs repairing compound chain. Pulled pkrs loose; no gas in DP. Pulled five stands w/wet plugs. Water cushion in 5th stand. Applied mud box and bled off same. Shut off all engines, fires, and boiler. DP unloaded. FEB 8 1971
Mud gradient - .556
Mud: (in) 11.3 (out) 10.8 x 40 x 8.4 (LCM 4%) (Oil 4%).

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

11,094/205/113/5. Drilling.
DST #4 11,028-11,089 (Johnston) 3414' (56 bbls) WC
Op 20 min — Hose plugged at surface first 10 min. Strong blow after 10 min. No GTS.
SI 120 min
Op 59 min — GTS 20 min. Max rate = 20 MCFPD. WCTS 50 min
SI 240 min.
Recovery: 134 bbls very gassy oil (determined from void remaining after subtracting water cushion volume)
Sample Chamber: 1725 psig
10.4 CF gas
1050 cc's oil (42.7° API at 60°)
50 cc's mud
Pressures: Recorder @ 11,041
IHP 6706, IFP 1895-2282, ISIP 6437, FFP 2212-3366, FSIP 6157, FHP 6661.
Max temp 219°F.
13 hrs on DST #4. FEB 9 1971
Mud gradient .561
Mud: 11.3 (in) 10.8 (out) x 54 x 10.4 (LCM 2%) (Oil 5%).

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

11,224/205/114/130. Drilling.
Mud gradient - .587-.535 FEB 10 1971
Mud: (in) 11.3 (out) 10.3 x 47 x 10 (LCM 1%) (Oil 7%).

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

10,536/205/101/140. Drilling.
1 hr repair of compressors. At 3:40 a.m. and depth of 10,524', mud kicked over rotating head. Installed rotating head rubber and resumed drlg.
Mud: (in) 10.1 (out) 9.9 x 36 x 9.6 (chl 700) (LCM trc) (Oil trc). JAN 2 8 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

10,700/205/102/164. Drilling.
Mud gradient - .556 JAN 2 9 1971
Mud: 10.6 x 38 x 9.6 (chl 700) (LCM trc) (Oil trc).

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

10,812/205/105/112. Circ through chk. Dev: 4° @ 10,801.
1/30/71, lost circ at 10,782 - regained w/LCM w/600 bbl loss.
1/31/71, 3¼ hrs circ bottoms up thru flowline & 4" chk manifold line. Resumed drlg. 3¼ hrs circ w/well kicking. Shut well in. Mixed pits to 11.4#/gal. 1 hr circ well thru super adjustable chk @ 45 SPM, 1800 DP press, 300 csg press.
Mud gradient .592
Mud: 11.4 x 41 x 8 (chl 750) (LCM trc) (Oil 6%). FEB 1 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

10,880/205/106/68. Drilling.
4 3/4 hrs circ through chk.
Mud gradient .566
Mud: (in) 11.3 (out) 10.9 x 49 x 7.2 (chl 700) (LCM trc) (Oil 1½%). FEB 2 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

10,960/205/107/80. Drilling.
3/4 hr cleaning shale pit.
Mud gradient - .572 FEB 3 1971
Mud: (in) 11.2 (out) 11.0 x 48 x 6 (chl 820) (LCM trc) (Oil 4%).

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

11,033/205/108/73. Losing circ.
3/4 hr working pipe at 11,019. Appeared to be fracture sliding in. Circulated 1½ hrs to make trip for new bit & magnafluxed DC's. Lost returns ½ hr. FEB 4 1971
Mud: (in) 11.4 (out) 11.2 x 44 x 8 (LCM trc).

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

11,761/205/149/104. Drilling.
Mud: 13.2 (in and out) x 47 x 5.2 (Oil 1%). MAR 1 8 1971

Shell Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" csg at 11,599'

11,793/205/150/32. Drilling. Dev: 4° @ 11,755.
Mud: 13.2 (in and out) x 48 x 5.2 (Oil 1%). MAR 1 9 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

11,878/205/153/85. Going in hole w/DST No. 5.
Raised mud weight to 14.9#/gal. MAR 2 2 1971
Mud: (in) 14.9 (out) 14.8 x 55 x 4.4 (Oil 7%).

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

11,878/205/154/0. Tripping in w/bit.
DST No. 5 11,826-11,878 (Halliburton)
(1) 3/4" B. H. Choke; ½" top choke for 10 min; 3/4" top choke for 12 min.
(2) 9468' WC (157 bbls)
(3) 42 bbls void space to fill
Op 22 min Strong blow immed. WCTS in 12 min.
Flowed 25 bbls WC in next 10 min.
SI 300 min.
Recovery:
67 bbls heavily gas cut oil (reversed and measured 41 bbls oil in stock tank)
Sample Chamber:
(1) 3600 psi
(2) 10.1 cu ft gas
(3) 1400 cc oil (46.1° API @ 60°F)
(4) GOR 1146 cu ft/bbl
Pressures: Recorder @ 11,870
IHP 9327, IFP 4897-5274, ISIP 8677 (0.731) stabilized
FHP 9303.
Max Temp = 202°F MAR 2 3 1971
No mud details.

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" csg at 11,599'

11,949/205/155/71. Drilling.
Lost 40 bbls mud while drlg at 11,940. MAR 2 4 1971
Mud gradient - .769
Mud: 14.8 x 57 x 4.0 (LCM Trc) (Oil 7%)

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

12,047/205/156/98. Drilling.
Show at 11,988. Cut mud weight from 14.7-14.3#.
Mud gradient - .769
Mud: 14.8 x 52 x 4.4 (Oil 6%). MAR 2 5 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

12,055/205/157/8. Running DST No. 6.
Mud: 14.7 x 52 x 4.4 (Oil 6%). MAR 2 6 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaecous Test
9 5/8" Csg at 11,599'

12,055/205/160/0. Circ and washing to bottom.
DST No. 6 11,970-12,055 (Halliburton)
(1) 3/4" B. H. Choke
(2) 9734' WC (163 bbls)
(3) 41 bbls void space to fill
Op 10 min WCTS 9 min.
SI 122 min
Op 16 min Flowed 60 bbls WC through ½" choke at sfc.
Pressure across choke increased from 600 psi to 725 psi.
SI 300 min.
Recovery: Reversed 47 bbls oil into stock tank.
Sample Chamber: (1) 3300 psig
(2) 13.2 cu ft gas
(3) 1400 cc oil (47.8° API @ 60°F.)
(4) GOR = 1486
Note: Oil is gold colored. Becomes green when mixed w/drlg mud.
Pressures: Recorder @ 11,942.
IHP 9290, IFP 4968-5305, ISIP 8193, FFP 6004-5775, FSIP 8201, FHP 9227.
Max temp = 210°F.
Washed to bottom w/Bowen junk basket. Rec'd cone and pin in Bowen Globe type basket w/approx 1' core and bearings in junk sub. Press tested BOP equip to 10,000 psi. Leaks repaired while press testing. MAR 2 9 1971
No mud details.

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

12,121/205/161/66. Drilling.
Mud: 14.6 x 57 x 4.4 (Oil 5%). MAR 3 0 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

12,206/205/162/85. Drilling.
Mud: 14.7 x 57 x 4.4 (Oil 4%). MAR 3 1 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

11,322/205/115/98. Drilling.
Had 1¼ hrs repair. FEB 11 1971
Mud gradient - .587-.551
Mud: 11.3-10.6 x 58 x 8.4 (LCM trc) (Oil 5%)

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

11,328/205/116/6. Mixing mud and LCM. Dev: 3 3/4° @ 11,325.
5½ hrs lost circ. Mixed mud, etc. Built circ at 12:30 a.m. w/slow loss. SD and mixed LCM pill. Pumped in same. Mud level in annulus of 400'. Total loss at 6 a.m. 350 bbls. While pmpg LCM pill down, had full returns for 10 mins.
Note: Had slight mud loss before trip. Mixed 10 sx of quickseal and loss stopped.
Mud gradient - .598-.551 FEB 12 1971
Mud: 11.5-10.6 x 48 x 7.2 (LCM trc) (Oil 6%).

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" csg at 6502'

11,547/205/119/219. Tripping for bit.
On 2/13/71, regained circ at 11,328 w/8 3/4 hr delay. Raised mud wt from 11.5 to 11.6.
On 2/14/71, raised mud wt from 11.6 to 11.7#.
On 2/15/71, drld a higher pressured zone at 11,518. Mud became highly gas cut. Began raising mud wt from 11.7 to 12.1. Lost returns while drlg at 11,547. Regained circ while raising mud wt from 12.1 to 12.4 - was having slow mud loss. Regained full returns slowly and increased strokes to 66 SPM. Lost 500 bbls in regaining circ at 11,547. Lost 160 bbls while raising mud wt. Mixed LCM at all times while raising mud wt. Increased LCM from 3%-15% to regain circ; then leveled off at 8% to retain circ.
Mud: (in) 12.3 (out) 12.2 x 39 x 9.6 (chl 400) (LCM 8%) (oil 6%). FEB 16 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

11,547/205/120/0. Repairing rig and circ at 10,700.
Dev: 3 3/4° at 11,500.
Ran bit to 7200'. Circ'd until mud was balanced. Ran bit to 10,700'. Circ'd until mud was balanced. Began running remaining 9 stands; dynamatic brake failed - chartered plane and flew parts and electrician from Casper. Called welder and repaired mixing pump. FEB 17 1971
Mud gradient - .639-.613
Mud: (in) 12.3 (out) 11.8 x 45 x 9.8 (LCM 9%) (Oil 4%).

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

11,566/205/121/19. Circ through chk manifold.
3 3/4 hrs washing and CO bridges from 10,699-10,903.
3½ hrs circ and cond mud before drlg ahead.
Mud: (in) 12.6 (out) 12.1
Commenced drlg at 5 p.m. w/mud (in) 12.5 (out) 12.5. Drld to 11,566 - had a 100 bbl increase. Shut well in. DP press 0 psi, CP 240. Put well on chk and pmpd slowly w/44 SPM at 1,000 psi. DP and CP 340 psi. Began losing mud slowly. Pumped 1249 strokes and SI well. Mixed LCM pill. Opened well on 1 3/4" chk and 4" blowdown line. Pmpd w/43 SPM. DP press 650 psi, CP 80 psi. After two hrs, SIDP press 0, CP 120 psi. Found fluid in DP at 564'.
Mud gradient: .665
FEB 1 8 1971
Mud: 12.5 x 39 x 9 (LCM 16%) (Oil 5%).

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg @ 6502'

11,566/205/122/0. Attempting to regain circ. While circ at 11,566, lost circ. Pulled 10 stds to 10,640'. Mixed mud and LCM. Pmpd away total of 1050 bbls. Hole will circ on upstroke of DP but will not circ w/DP stationary.
Mud gradient: .667
FEB 1 9 1971
Mud: 12.8 x 39 x 9 (LCM 10-15%) (Oil 5%)

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

11,571/205/125/5. Drilling.
Pulled DP in stages until circ could be regained at 5000'. Mud loss to this point was total of 2700 bbls. Loss due to highly gelled mud in 13 3/8" csg. Staged DP in hole circulating out each stage checking for gas cutting. Possible loss zones: 9792-9899 and 10,594-11,082; 18 hrs washing and drilling bridges within these footages. Circ'd bottoms up and resumed drilling operations 4:10 a.m. 2/22/71. Mostly highly gas-cut mud from 11,082-11,566.
Mud gradient .670.
FEB 2 2 1971
Mud: 12.9 x 40 x 6.4 (LCM 9%) (Oil 3%).

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous
Test
13 3/8" Csg at 6502'

11,600/205/126/29. Circ and cond hole.
Shut pump down for 1 hr to check for gas entry into wellbore. When circ was resumed, 10,250 units of gas were recorded for 1½ hrs. Commenced raising the mud weight. 6 hrs circulating gas kick out of hole consisting of 113 bbls gained. 13.1 mud held gas to a minimum @ 11,585. While circulating gas kick after 113 bbl gain, had 8 bbls loss. Slowed pump to idle (43 SPM) and increased strokes gradually while maintaining full returns.
FEB 2 3 1971
Mud gradient: .686
Mud: 13.2 x 42 x 4.8 (LCM 14%) (Oil 2%).

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

11,600/205/127/0. Stringing up 12 lines and checking dynamatic brake w/bit at 6400'. SLM 11,600=11,602.73 (no correction). Made 22 stds on short trip; gas very slight. On trip out of hole, encountered tight hole from 9586-8614.
Mud gradient - .681-.686 FEB 2 4 1971
Mud: 13.1-13.2 x 43 x 5 (Oil 2%).

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" csg at 6502'

11,600/205/128/0 Circ & cond mud w/chemicals at 10,632. Circ & cond mud; could not break circ at 6400. Lost 100 bbls mud. Pulled bit to 3075 and broke circ. Staged in hole and circ at 3656, 6430, 8294, and 9681. Mud was highly gelled in upper part of hole. Max gas reading during staging operation - 925 units.
Mud gradient - (in and out) .691 FEB 2 5 1971
Mud: (in and out) 13.3 x 46 x 6 (LCM 10%) (Oil 3%)

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

11,600/205/129/0. Circ and cond mud at 11,600'. Circ for 2 hrs (38 SPM) at 10,788'. Lost approx 70 bbls mud. Circ'd 4 hrs and mixed iron filings into mud system. Max 350 units of gas, max of 3500 gas after being off bottom 51½ hrs.
Mud gradient- .686. FEB 2 6 1971
Mud: 13.2 x 52 x 4.8 (LCM 14%) (Oil 2%).

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

11,600/205/132/0. Logging.
Cond hole for logging.
Mud gradient - .696-.686 MAR 1 1971
Mud: (in) 13.4 (out) 13.2 x 46 x 5.4 (LCM 12%) (Oil 3%).

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

11,600/205/133/0. Logging; RU to run core slicer.
MAR 2 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502

11,600/205/134/0. Logging. MAR 3 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

11,600/205/135/0. Prep to run csg.
Ran Schl tools as follows:
DIL/SP, Int BHCS/GR, PL/ML/Cal, SNP/GR/Cal, NML,
Core slicer
Sidewall cores as follows:

10,519-522	Attempted (No recovery)
10,981-984	Ss, f-m, calc (no shows)
11,045.5-48.5	Ss, f-m, ang to sub ang, vertical calcite lined fractures (10" long) filled w/oil, some natural stain in matrix adjacent to fractures.
11,512-15.5	Ss (1'), fg, well sorted, slow str cut fluor, calc, gry, graded to sh in upper part, calc, silty, dk gry to black
11,518-21	Attempted (could not anchor tool)
11,456-59	Recoveries mixed in core catcher
11,556-59	Recoveries mixed in core catcher
11,559-62	Recoveries mixed in core catcher
11,456-59	One 3' piece. Ss, f-m, very calc, hard, 3" vert frac @ 11,456, oil stain on frac, slow str yellow cut fluor from matrix.
11,556-59	Sh, dk gry, very calc, part silty, some blk sh.
11,559-62	Broken pieces. Sh, dk gry, v/calc, carb; sh, gry-grn, dolo, pyritic, silty; sltst, calc, gry; ss, gry, vfg, slow str cut fluor. MAR 4 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

11,600/205/136/0. Running 9 5/8" Csg. MAR 5 1971
Mud gradient - .686
Mud: 13.2 x 46 x 5.2 (LCM 12%) (Oil 4%)

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" csg at 11,599'

11,600/205/139/0. Nippling up.
Ran and cmt 275 jts (11,578') 47# S-95 and P-110 LT&C 9 5/8" csg at 11,599' w/425 sx std lite cmt, 1/8# Nylon Fibers, and 3/4% CFR-2/sx. Tailed in w/170 sx Class "G" Neat containing 18% salt, 1/8# Nylon Fibers, 1% CFR-2 and .2% HR-4. Top of float collar at 11,518, top of float shoe at 11,597. Lost 100 bbls mud. While circ csg w/40 bbls mud, treated w/100# bicarb and 4 sx Unical ahead. Mixed at 15.7#/gal. Plug down 7:45 p.m. 3/5/71. Good returns throughout. Did not bump plug. SI both the csg and annulus for 12 hrs. MAR 8 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" csg at 11,599'

11,600/205/140/0. Nippling up.
No mud details. MAR 9 1971

Shell-Brotherson No. 1-11B4 (D) Noble 18,000' Cretaceous Test 9 5/8" csg at 11,599'	11,600/205/141/0. Nippling up. 24 hrs nippling up. Installed flow line and gas separator for same. Poured concrete pad for choke manifold. Installed 500-gal air supply tank. Installed hydraulic lines to BOP's. Air and steam lines to accumulator house located 100+ feet from center of hole and in view of the driller's position at the driller's console. Measured, calipered and picked up 24 DC's and btm hole assembly and stood back in derrick. MAR 1 0 1971
Shell-Brotherson No. 1-11B4 (D) Noble 18,000' Cretaceous Test 9 5/8" csg at 11,599'	11,600/205/142/0. Nippling up and press testing. Installed csg protector rubbers on 17 stands DP. Installed chk manifold, making and installing hand wheel extensions for BOP. Installed hydril accumulator and controls for hydril-operated valves. Press testing 18 hrs. MAR 1 1 1971
Shell-Brotherson No. 1-11B4 (D) Noble 18,000' Cretaceous Test 9 5/8" csg at 11,599'	11,600/205/143/0. Nippling up. 24 hrs nippling up. Press tested for total of 40 hrs w/more anticipated after complete installation. No mud check. MAR 1 2 1971
Shell-Brotherson No. 1-11B4 (D) Noble 18,000' Cretaceous Test 9 5/8" Csg at 11,599'	11,600/205/146/0. Tripping out of hole to run bond log. 24 hrs nippling up. Picked up 87 jts DP. Ran in hole and installed csg protector rubbers. Press tested stand pipe, kill lines, blind rams; held ok. Tested chk manifold and chokes. Circ to cond and balance mud. Completed trip in hole and washed from 11,467 to top of float at 11,518. Removed LCM from pump. Tested csg to 3,000 psi above 11,518. Drld float collar and cmt between float and shoe and drld shoe at 11,597. MAR 1 5 1971 Mud: 13.2 x 45 x 7.8.
Shell-Brotherson No. 1-11B4 (D) Noble 18,000' Cretaceous Test 9 5/8" Csg at 11,599'	11,600/205/147/0. RD OWP and Sperry-Sun. Ran bond logs by OWP and Schl; logs indicated no cement behind 9 5/8" csg. Ran Sperry Sun gyro survey. No mud details. MAR 1 6 1971
Shell-Brotherson No. 1-11B4 (D) Noble 18,000' Cretaceous Test 9 5/8" Csg at 11,599'	11,657/205/148/57. Drilling. Filled 13 3/8" - 9 5/8" annulus w/9 bbls wtr. Closed hydril and press'd 9 5/8" csg to 1,000 psi for one hr. Circ bottom up. Resumed drlg 6:30 p.m. 3/16/71. Ran test on cmt - firm in 20 hrs. MAR 1 7 1971 Mud: 13.2 x 53 x 7.2

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

12,677/205/173/20} Going in hole w/bit. Dev: 3° @ 12,677.
Tripped out w/DST #7 and laid down tools.
DST No. 7 12,363-12,476. (Halliburton)
(1) 10,100' water cushion (167 bbls)
Op 15 min. No blow for 1.5 min. Blow from 4" H_2O after 1.5 min, inc to blow from 12" H_2O in 5 min, continued to increase. No GTS.
SI 120 min
Op 36 min. Opened w/blow from 12" H_2O, inc steadily. WCTS in 8 min, flowed 70 bbls WC in next 28 min.
SI 309 min Expansion of gas in drill pipe allowed wtr cushion to continue flowing into tank during shut in.
Recovery: 21 bbls oil.
Sample Chamber: 3350 psig, 12.4 cf gas (GOR 1775), 1200 cc's oil. (50° API @ 60°F)
Pressures: Recorder @ 12,468. IHP 9222, IFP 4580-5026, ISIP 8991, FFP 5112-5294, FSIP 8944, FHP 9488.
Max temp 209°F.
Ran logs as follows: Int BHCS/GR/Cal, DIL/SP and PL/ML.
Mud: No mud check. APR 12 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

12,731/205/174/54. Drilling. APR 13 1971
Mud: (gradient .780) 15.0 x 64 x 4.8 (Oil 4%).

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

12,756/205/175/25. Drilling.
Mud: (gradient .780) 15 x 50 x 4.8 (Oil 20%). APR 14 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

12,849/205/176/93. Drilling
Mud: (gradient .774) 14.9 x 53 x 4.8. APR 15 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

12,932/205/177/83. Drilling.
Mud: (gradient .774) 14.9 x 54 x 4.8 (Oil 4%). APR 16 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

13,072/205/180/86. Drlg. Dev: 3° @ 12,954.
Mud: (gradient.769) 14.8 x 55 x 5.2 (Oil 3%). APR 19 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

12,262/205/163/56. Drilling
Mud gradient .759
Mud: 14.6 x 55 x 4.0 (chl 780) (Oil 3%)
APR 1 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

12,330/205/164/68. Drilling.
Mud gradient .764
Mud: 14.7 x 60 x 4.6 (860 chl) (oil 2%)
APR 2 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

12,419/205/167/89. Coring on Core #3. Dev: 3 3/4° @ 12,360.
Core No. 2 12,360-12,416. Cut and rec 56'

12,360-65	Ls, gry to dk brn, dense, fossil in part. (62-63) vert fracture. Stain on frac face. Dull yellow nat fluor. Faint yellow cut fluor.
65-73	Ss, brn, fg, firm, tite, no vis stain, no nat fluor, very pale cut fluor.
73-76	Ss, a.a., vert frac, dull nat fluor on frac face, very slow cut fluor.
76-83	Sh, blk to dk brn, calc, fossiliferous.
83-87	Sh, gry to gry-grn, arg.
87-94	Sh, dk gry to blk, dk brn, calc, occ ostracods (92-94) pyrite.
94-95	Ls, dk brn, silty, vert frac.
95-97	Sh, dk gry to gry, mica, partial calcite filled vert frac (no fluor or cut).
97-99	Sh, grn-gry, arg.
99-400	Ss, gry-grn, vfg, hard, tite, calcite lined frac, nat stain, gas bleeding from frac, bright yellow cut fluor.
400-01	Sh, gry, w/sltst interbedded.
01-04	Ss, gry, fg, hard, tite, calc, very dull yellow nat fluor, very slow pale yellow cut fluor.
04-09	Sh, brn, calc, silty
09-10	Ls, brn, dense.
10-14	Sh, dk gry to gry-grn, silty micaceous.
14-15	Ss, gry, fg, tite, very silty, vert frac w/calcite crystals, no nat fluor, very pale yellow cut fluor.
15-16	Sh, gry, silty, micaceous

SLM 12,360 = 12,360.81 (no correction).
Mud gradient .759
Mud: 14.6+ x 54 x 4.8 (chl 920) (Oil 2%).
APR 5 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

13,123/205/181/51. Drilling.
Mud: (gradient .780) 15 x 54 x 5.6 (Oil 2%). APR 2 0 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

13,140/205/182/17. Drilling. APR 2 1 1971
Mud: (gradient .774) 14.9 x 58 x 5.6 (Oil 2%)

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

13,228/205/183/88. Drilling.
Mud: (gradient .774) 14.9 x 53 x 5.6 (Oil 2%). APR 2 2 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

13,318/205/184/90. Drilling.
Mud: (gradient .774) 14.9 x 51 x 4.8 (Oil 2%). APR 2 3 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" csg at 11,599'

13,515/205/187/197. Drilling. Dev: 3° at 13,330
Mud: (gradient .774) 14.9 x 58 x 4.8 (Oil 2%) APR 2 6 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" csg at 11,599'

13,529/205/188/14. Tripping in w/DST #8 13,349-13,529.
Drilled to 13,529. Circulated bottoms up. Made 5 stand short trip; circulated & cond mud for DST. APR 2 7 1971
Mud: (gradient .774) 14.9 x 49 x 3.6 (Oil 2%)

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" csg at 11,599'

13,529/205/189/0. Going in hole w/bit.
DST No. 8 13,349-13,529
(11,000' water cushion, 15/16" choke)
IF Op 20 minutes. Opened w/weak blow (2½" H_2O), decreasing slightly. No GTS.
SI 2 hrs.
FF Open 45 minutes. Opened w/weak blow (1" H_2O) and slowly decreasing. Dead in 40 minutes. No GTS.
Final Shut In - 5 hrs
Press's (Recorder at 13,326)
IHP = 10,571 psi FHP = 10,539 psi
ISIP = 7557 psi (Building slowly)
FSIP = 7663 psi (Building slowly)
IFP = 4848-4882
FFP = 4882-4882
Reversed out 186 bbls water cushion plus undetermined volume rat hole mud.
Sample Chamber contained: 350 cc's oil APR 2 8 1971
1775 cc's mud
2.55 CF gas at 1425 psi
BHT = 227°F
Mud: No mud check

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" csg at 11,599'

13,584/205/190/55. Drilling.
Reamed to bottom w/bit from 11,412-11,529.
Mud: (gradient .774) 14.9 x 53 x 4.4 (Oil 2%) APR 2 9 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" csg at 11,599'

13,668/205/191/84. Drilling.
Mud: 14.9 x 56 x 4.4 (Oil 2%) APR 3 0 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

13,961/205/194/293. Drilling.
Mud: 14.9 x 57 x 4.8. MAY 3 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test.
9 5/8" Csg at 11,599'

14,066/205/195/105. Drilling.
Mud: 14.9 x 53 x 5.2 (Oil 2%). MAY 4 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

14,166/205/196/100. Drilling.
Mud: (gradient .774) 14.9 x 50 x 5.2 (Oil 2%). MAY 5 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

12,474/205/168/55. Circulating bottoms up before pulling Core No. 3. APR 6 1971
Mud: (gradient .754) 14.5+ x 54 x 4.8 (chl 890) (Oil 2%).

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

12,476/205/169/2. Going in hole w/DST #7.
Core No. 3 12,416-12,476 Cut and rec'd 60'

12,416-417	Sh, dk brn, carb, ostracods, silty, micaceous, kerogenous
17-18	Sh, a.a., w/tr ss, gry, vfg, hd, tite, calc, arg, no nat fluor, very faint cut fluor.
18-19	Sh, a.a., w/6" ss, a.a., fracture 10° from vert, calcite cyrstals, very faint yellow-white fluor and cut.
19-20	Sh, a.a.
20-24	Ls, dk grn, m-xtln v/arg, fossiliferous, w/grn sh patches
24-28	Sh, dk brn, carb, ostracods, silty, micaceous, kerogenous
28-29	Sh, a.a., w/tr ss, a.a. @ 18-19, fractures a.a. @ 18-19.
29-35	Sh, a.a.
35-36	Sh, a.a., w/tr sh, light grn
36-37	Sltst, gry, hd, calc, arg fracture 10° from vert.
37-38	Sh, a.a., w/tr ss, no shows
38-39	Sh, a.a., w/2" sh, soft, fissile
39-40	Sh, a.a., w/2" ss, no shows
40-41	Ss, no shows
41-42	Sh, w/tr ss, no shows, fracture 10° from vert
42-44	Sh, w/tr Ls
44-46	Sh, w/tr ss
46-49	Sh, w/sltst
49-50	Sh, fractured
50-51	Sh, v/silty, frac face w/some visible oil stain
51-52	Ss, w/4" sh, fractured
52-53	Sh, fractured
53-58	Sh
58-59	Sh, w/tr grn sh lams
59-68	Sh
68-70	Sh, w/tr grn sh lams
70-76	Sh, w/tr sltst

No mud check. APR 7 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

12,476/205/170/0. Trip out w/DST #7.
Mud: (gradient .769 in - .758 out) 14.8 (in) 14.6 (out) x 58 x 5.6 (Oil 5%). APR 8 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" csg at 11,599'

14,535/205/208/107. Drilling.
On 5/16/71, had some indication of running on jk. 70-80% of diamond bit polished off; gauge good. Outside edge showed slight wear possibly from rng on iron or formation. Circ & washed to btm. Unable to rotate 20' off btm. Changed out 5 stds. Washed and reamed to btm. MAY 17 1971
Mud: (gradient .764) 14.7 x 58 x 4.8 (Oil 4%).

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

14,603/205/209/67. Drilling. MAY 18 1971
Mud: (gradient .764) 14.7 x 58 x 5.2 (Oil 4%).

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

14,650/205/210/47. Testing BOP's.
Mud: 14.7 x 58 x 5.2 (Oil 4%). MAY 19 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599

14,675/205/211/25. Drilling.
Pressure test BOP's to 7,000 psi - held ok.
Mud: (gradient .764) 14.7 x 63 x 4.8 (Oil 4%). MAY 20 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

14,748/205/212/73. Drilling. MAY 21 1971
Mud: (gradient .764) 14.7 x 64 x 5.2 (Oil 3.0%).

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

14,770/205/215/22. Running DST No. 10. Dev: 3 3/4° @ 14,760.
On 5/22, opened test tool 5:30 a.m. Pkr failed. Attempted to reset and found 20' fill on btm. Washed bridge at 11,750 and 60' to btm. Reop'd test tool 2:45 a.m. 5/24/71.
No mud details. MAY 24 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

14,770/205/216/0. Tripping in hole w/bit.
DST No. 10 - misrun.
Had tool failure. MAY 25 1971
Mud: (gradient .764) 14.7 x 63 x 4.4 (Oil .03)

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg 11,599'

14,770/205/217/0. Running DST No. 11
Opened tool for DST No. 11 5:40 a.m. 5/26/71. MAY 26 1971
Mud: (gradient .769) 14.8 x 50 x 5.6 (Oil .03).

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

14,774/205/218/4. Drilling.
DST #11 14,630-770
Open 10 min w/strong blow, strong throughout
SI 120 min.
Opened tool and pkrs failed immediately
BHT = 246°F
Recorder @ 14,606'
IHP 11,524; IFP 6630-6630; ISIP 9824; FHP 11,440.
Mud: 14.7 x 56 x 5.2 (Oil .03) MAY 27 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

14,835/205/219/61. Drilling.
Reamed 14,807-14,827.
Mud: (gradient .764) 14.7 x 65 x 5.4. MAY 28 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

15,080/205/223/245. Working tight pipe.
Dev: 3 3/4° @14,917.
On 5/28/71, washed & reamed to btm.
On 5/31/71, spent 1½ hrs working tight pipe.
Mud: (gradient .748) 14.4 x 56 x 5.6 (Oil 2%). JUN 1 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

15,151/205/224/71.Drilling.
Unable to rotate working pipe. Circ out 5 singles and pulled 8 stds. Washed and reamed back to btm. With high torque, worked pipe back to btm.
Mud: (gradient .748) 14.4 x 55 x 4.8 (Oil 2%). JUN 2 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

15,177/204/225/26. Drlg.
Mud: (gradient .743) 14.3 x 53 x 5.2 (Oil 2%). JUN 3 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

15,319/204/226/142. Drilling.
Mud: (gradient .748) 14.4 x 55 x 4.4 (Oil 6%). JUN 4 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

14,184/205/197/18. RU to run freepoint.
Mud: (gradient .774) 14.9 x 57 x 4.8 (Oil 3%). MAY 6 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

14,184/205/198/0. Circ btms up.
Ran freepoint and backed off. Found tools free to btm collar. Backed off DC's w/back torque while attempting back off. Chained out of hole. Left following in hole: bit, 6 pt reamer, 8 DC's, 3 stabilizers, and sleeve from #2 stabilizer. Ran in hole w/jars and bumper sub. Fish top 13,878-14,144 - 40' off bottom. MAY 7 1971
Mud: (gradient .774) 14.9 x 54 x 4.4 (Oil 5%).

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

14,248/205/201/64. Drilling.
Circ bottoms up. Screwed into fish and rec'd same. Lost approx ¼ of stabilizing blade in hole. Magnafluxed DC's and found one cracked. Made trip in hole w/junk mill; washed & reamed to btm. Milled on junk & tripped out w/mill. Picked up five stabilizers & 6 point reamer. Washed & reamed to btm. Resumed drilling.
Mud: (gradient .764) 14.7 x 54 x 4.8 (Oil 6%) MAY 10 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

14,275/205/202/27. Going in hole w/bit.
Mud: (gradient .764) 14.8 x 54 x 4.8 (Oil 6%). MAY 11 1971

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

14,330/205/203/55. Drilling.
Mud: (gradient .764) 14.7 x 50 x 5.2 (Oil 5%). MAY 12 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" Csg at 11,599'

14,358/205/204/28. Drilling.
Mud: (gradient .764) 14.7 x 53 x 14.4 (Oil 5%). MAY 13 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
9 5/8" csg at 11,599'

14,428/205/205/70. Drilling.
Mud: 14.7 x 55 x 4.8 (Oil 4%) MAY 14 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner @ 15,453'

17,766/204/276/0. Wire line logging. JUL 2 9 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner @ 15,453'

17,766/204/277/0. Tripping.
Tripped in w/openended DP. Washed to btm 17,766'. Circ & cond mud. Tripped out to run Bkr Model "D". Ran logs as follows: BHC Sonic, SIL-SP, SNP-GR, Wireline Diff Temp Log. JUL 3 0 1971
Mud: (gradient .587) 11.3 x 43 x 5.2 (Oil 6%).

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner @ 15,453'

17,766/204/280/0. Circ and building mud weight.
Set Bkr Model "D" pkr @ 15,318'. Ran DST (Johnston) as follows:
DST No. 12 15,318-17,766 (9500' WC)
Op 30 min strong blow immed - dec to weak blow after 15 min.
SI 90 min
Op 240 min - weak blow dec slowly to very weak (½" @ 240 min).
SI 1050 min - No GTS
Lost 18 bbls mud into drill pipe above test tool during test.
Reversed out water cushion (126.5 bbls) and 27.9 bbls water cut drilling mud in following order:
Water cushion 30 min
Water cut mud 20 min
Water cushion 50 min
R @ 20 min 8 ohms @ 94°
R @ 90 min 8 ohms @ 94°
R @ 100 min 7 ohms @ 94°
Rm = 1.1 ohms @ 94°
Rm = (MFE Chamber) 1 ohm @ 94°
No gas bubbles in reversed out fluid, no trace of oil.
Sample Chamber: 1980 cc mud (11.3#/gal) No gas or oil visible.
Recorder @ 15,166' AUG 2 1971
IHP 9106, IFP 4478-4534, ISIP 6004 building slowly
FFP 4624-4716, FSIP 6526 building slowly, FHSP 8994, BHT 274°F.

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner @ 15,453'

TD 17,766. PB 15,318 (Model "D")/204/281/0 Prep to CO.
Circ & raised mud weight. Tested pumps and lines to 5000 psi Stabbed into Model "D" pkr. Pmpd away w/5½ bbls/min at 1500 psi. Mixed 100 sx and 20 bbls 15.1 slurry. Put 10 bbls wtr ahead and behind. Sqzd away through Model "D" pkr at 15,318 w/3 B/M at 1000 psi. Pulled above pkr and reversed out 3 bbls wtr. Tripped out and laid down DCs. AUG 3 1971
Mud: (gradient .670) 12.9 x 43 x 5.6 (Oil 5%)

Shell-Brotherson 1-11B4 (D) Noble 18,000' Cretaceous Test 9 5/8" csg at 11,599'	15,455/204/229/136. Logging. Dev: 4° @ 15,455. Circ bottom up. Tripped out and chg bit. Washed and reamed to btm. Circ hole clean for logs. Mud: No mud details JUN 7 1971
Shell-Brotherson 1-11B4 (D) Noble 18,000' Cretaceous Test 9 5/8" csg at 11,599'	15,455/204/230/0. Repairing logging equipment. Circ & cond hole. Logging tools hung up in hole. Tripped in w/drlg hook up. JUN 8 1971 Mud: (gradient .743) 14.3 x 51 x 4.5 (Oil 6%)
Shell-Brotherson 1-11B4 (D) Noble 18,000' Cretaceous Test 9 5/8" csg at 11,599'	15,455/204/231/0. Running velocity survey. Ran logs as follows: DIL/SP. BHC Sonic/GR/Cal, PML, NML, Experimental Circumferential Mirco Sonic Log. Stuck experimental Sonic @ 12,900±. Left one arm of tool in hole. Mud: No mud details. JUN 9 1971
Shell-Brotherson 1-11B4 (D) Noble 18,000' Cretaceous Test 9 5/8" csg at 11,599'	15,455/204/232/0. Logging. Washed 50' to btm and cleaned btm of hole. Circ & cond mud. Logging w/experimental circuferential four-quandrant microsonic tool. Mud: (gradient .748) 14.4 x 55 x 4.2 (Oil 6%) JUN 10 1971
Shell-Brotherson 1-11B4 (D) Noble 18,000' Cretaceous Test 9 5/8" csg at 11,599'	15,455/204/233/0. Prep to run liner. Circ & cond hole. Ran logs as follows: Experimental circumferential Micro Sonic Log, SNP/GR. Trip in hole to cond for liner. Cond mud & drill on junk in hole. JUN 11 1971 Mud: (gradient .754) 14.5 x 50 x 4.4 (Oil 6%)
Shell-Brotherson 1-11B4 (D) Noble 18,000' Cretaceous Test 7 5/8" liner at 15,453'	15,455/204/236/0. Drilling out cement. On 6/12, ran and cmt 114 jts 7 5/8" 39# S-95 hyd SFJ liner at 15,453'. Top tie-back sleeve and hanger at 11,305', landing collar at 15,338', shoe at 15,453'. With 2 bbls wtr ahead, cmt w/50 sx 25-25 poz, 11 bbls 13.5# slurry, followed by 630 sx Class "G", 10% salt, 30% silica flour, 1% CFR-2, 5% HR-4, 184 bbls 15.8# slurry. Picked up liner plug w/200 bbls mud. Plug down 2/372 bbls mud. Tested to 1000 psi, ok. CIP 9:35 p.m. 6/12/71. On 6/13, laid down DP & DC's. Changed btm rams. Strapped in w/8 5/8" bit. Top of cmt at 11,082'. Drld out cmt to top of liner at 11,303'. JUN 14 1971 Mud: (gradient .745) 14.4 x 45 x 5.4 (Oil 6%)
Shell-Brotherson 1-11B4 (D) Noble 18,000' Cretaceous Test 7 5/8" liner at 15,453'	15,455/204/237/0. Drilling float collar at 15,337'. Tested csg liner lap and BOP's w/3000 psi for 10 min., ok. Picked up 21 - 5" DC's and 120 stds 3½" DP. Drld 60' cmt from 11,315-11,418 through hanger. Mud: 14.4 JUN 15 1971
Shell-Brotherson 1-11B4 (D) Noble 18,000' Cretaceous Test 7 5/8" liner at 15,453'	15,457/204/238/2. Tripping. Drld float collar at 15,337. Tested csg and liner to 3,000 psi, ok. Drld cmt from 15,337-15,452. Drld shoe and drld to 15,457'. Mud: (gradient .743) 14.3 x 46 x 5.2 (Oil 5%) JUN 16 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" liner at 15,453'

15,482/204/239/25. Going in hole w/bit.
Mud: (gradient .738) 14.2 x 49 x 4.8 (Oil 6%) JUN 17 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" liner at 15,453'

15,537/204/240/55. Drilling.
Mud: (gradient .738) 14.2 x 63 x 4.8 (Oil 6%) JUN 18 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" liner at 15,453'

15,828/204/243/291. Drilling. JUN 21 1971
Mud: (gradient .707) 13.6 x 48 x 4.8 (Oil 6.5%)

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" liner at 15,453'

15,882/204/244/54. Drilling.
Mud: (gradient .690) 13.5 x 48 x 4.6 (Oil 7%) JUN 22 1971.

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" liner at 15,453'

15,995/204/245/113. Drilling.
Mud: (gradient .631) 13.3 x 58 x 4.8 (Oil 7%) JUN 23 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" liner at 15,453'

16,062/204/246/67. Going in hole w/bit. Dev: 4° at 16,062.
Mud: (gradient .631) 13.3 x 44 x 5.2 (Oil 7%) JUN 24 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" liner at 15,453'

16,132/204/247/70. Drilling. JUN 25 1971
Mud: (gradient .686) 13.2 x 45 x 4.4 (Oil 6%)

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" liner at 15,453'

16,328/204/248/73. Drilling. JUN 28 1971
Mud: (gradient .665) 12.8 x 44 x 4.4 (Oil 7%).

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner at 15,453'

16,388/204/249/60. Circulating up.
Mud: (gradient .665) 12.8 x 44 x 4.4 (Oil 8%). JUN 29 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner at 15,453'

16,400/204/250/12. Drilling. JUN 30 1971
Mud: (gradient .665) 12.8 x 52 x 4 (Oil 7%).

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner at 15,453'

16,479/204/251/79. Circ btms up. JUL 1 1971
Mud: (gradient .650) 12.5+ x 50 x 4.2 (Oil 6%)

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner at 15,453'

16,502/204/252/23. Drilling.
Mud: (gradient .550) 12.5 x 44 x 4.6 (Oil 8%) JUL 2 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner at 15,453'

16,745/204/256/243.. Drilling. Dev: 5° @ 16,745
DC #11 washed out 10" above tool joint.
Circ btms up. JUL 6 1971
Mud: 12.1 x 45 x 4.4

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner at 15,453'

16,747/204/257/2. Tripping.. Circ btms up
No mud details. JUL 7 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner @ 15,453'

16,784/204/258/37. Tripping
Circ btms up JUL 8 1971
Mud: (gradient .624) 12.0 x 42 x 4.4 (Oil 6%)

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner @ 15,453'

16,784/204/259/0. Installing high clutch. JUL 9 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner @ 15,453'

17,069/204/262/285. Drilling w/turbo.
Mud: (gradient .613) 11.8 x 41 x 4.2 (Oil 6%) JUL 12 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner at 15,453'

17,160/204/263/91. Drilling.
Mud: (gradient .598) 11.5 x 42 x 4.6 (Oil 8%) JUL 13 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner @ 15,453'

17,206/204/264/46. Drilling.
Washed & reamed to btm. JUL 14 1971
Mud: (gradient .603) 11.6 x 40 x 4.4 (Oil 7%)

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner @ 15,453'

17,309/204/265/103'. Circ up bit #83.
Mud: (gradient .603) 11.6 x 41 x 4.6 (Oil 6%). JUL 15 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner @ 15,453'

17,340/204/266/31. Drilling.
Laid down turbodrill and checked BOP's. Washed and reamed to btm. JUL 16 1971
Mud: (gradient .603) 11.6 x 41 x 4.4 (Oil 7%)

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner @ 15,453'

17,390/204/269/50. Drilling.
On trip, twisted off bit stabilizer. Tripped in w/fishing tools and circ btms up. Circ and cond mud. Made trip and rec'd fish (full recovery). Reamed and washed to bottom. Resumed drlg. JUL 19 1971
Mud: gradient .603 11.6 x 39 x 4.8 (Oil 6%)

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner @ 15,453'

17,459/204/267/69. Drilling. JUL 20 1971
Mud: (gradient .598) 11.5 x 40 x 4.8.

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner @ 15,453'

17,494/204/268/35. Tripping.
Mud: 11.5 x 43 x 4.4 (Oil 6%) JUL 2 1 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner @ 15,453'

17,529/204/269/35. Drilling.
Tested BOP's JUL 2 2 1971
Washed and reamed hole. Circ btms up.
Mud: (gradient .592) 11.4 x 40 x 4.6 (Oil 6%)

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner @ 15,453'

17,615/204/270/86. Drilling. JUL 2 3 1971
Mud: (gradient .582) 11.2 x 41 x 4.8 (Oil 8%)

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner @ 15,453'

17,714/204/273/99. Tripping, Dev: 3/4° @ 17,600'.
Magnafluxed DC's. Laid down 1 swelled box. Washed and reamed to bottom. JUL 2 6 1971
Mud: (gradient .587) 11.3 x 41 x 46 (Oil 6%)

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner @ 15,453'

17,750/204/274/36. Making up core bbl.
Washed and reamed to btm. Circ btms up for core.
Mud: (gradient .587) 11.3 x 41 x 4.6 (Oil 6%) JUL 2 7 1971

Shell-Brotherson
1-11B4
(D) Noble
18,000' Cretaceous Test
7 5/8" Liner @ 15,453'

17,766/204/275/16. Logging.
Washed & reamed 48'. Circ btms up.
Core No. 4 17,750-17,766 - Cut 16'. Rec 15'.

17,750-752	Ss, vf-m, silty, gry, poorly sorted, chert clasts, tite, N.S.
17,752-754	Ss, vf-m, silty, v argill, gry, poorly sorted, tite, N.S.
17,754-756	Ss, a.a.
17,756-758	Ss, gry, vf-f, qtzitic, tite, N.S.
17,758-760	Ss, gry, vf-f, subangular, qtzitic, tite, N.S. w/inclusions of blk sh w/brn strk.
17,760-762	Ss, gry, vf-f, qtzitic, tite, N.S.
17,763	Ss, gry, vf-f, occ med grn, qtzitic, tite, strks of dk color in ss, N.S.
17,764	Ss, gry-brn, f-med (mainly med), w/chert clasts up to pebble and granular size, qtzitic, tite, N. S., occ sh clasts.
17,765	Ss, gry, f-crse, p.s., gry chert clasts up to pebble size, qtzitic, tite, N.S. JUL 2 8 1971

Mud: (gradient .587) 11.3 x 40 x 4.4 (Oil 7%)

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" Liner @ 15,453

TD 17,766. PB 15,216. Prep to perf 14,746-756.
On 8/14/71, circ and cond mud at PBTD. Ran total of 506 jts 2 7/8" tbg w/6¼" bit. Circ and cond mud. AUG 16 1971
On 8/15/71, pulled tbg and bit. RU OWP and ran CBL and correlation logs. WL PBTD = 15,216'. Good bonding from 15,210-14,600', poor bonding 14,750-14,600', good bonding 13,500'-13,750', poor bonding 13,350'-13,500', marginal and good bonding 11,500-13,350', marginal bonding 11,300'-11,500', marginal bonding 9850-11,300', good bonding 8320-9850'. Cmt top at 8120'. Pulled up hole to check collar; pulling hvy and quit coming at 14,685. Set pkr at 14,685. Pulled setting tool. RD OWP. Pulled adapter flange from BOP stack. Installed 11" 10,000# x 7 1/16" 10,000# tbg tanks. Picked up 25' seal assembly and locator sub. Ran in hole on 489 jts 2 ½" N-80 tbg. Spaced out in pkr w/neutral wt. Unstung from pkr and displaced mud from tbg w/82 bbls fresh wtr w/3500 psi. Spaced out in pkr. Tbg dead with valve open. 3400# differential. Installed 7 1/16" 10,000# Christmas tree. Packed and tested bushing seal to 10,000#. AUG 16 1971

Shell-Brotherson
1-11B4
(D)
18,000" Cretaceous Test
7 5/8" Liner @ 15,453"

TD 17,766. PB 15,216. Swabbing from 7300'.
Ran jet biwire gun to 6200'; sticking. Pulled gun. Ran sinker bars, jars, and collar locator in hole to PBTD. Checked collars. Located btm of seal assembly at 14,772 w/pkr at 14,695 instead of 14,685 as previously reported. Pulled sinker bars, jars and collar locator. Ran gun and perf'd zone 14,746-14,756 w/2 DPC ceramic jts/ft. 1 min pressure build up from 0-500 psi, 3 min pressure build up to 600 psi, 10 min build up to 700 psi. Pressure trend reversed. Slide vacuum on lubricator went out of hole w/line. RD OWP. RU to swab. Fluid @ wellhead. Swabbed approx 42 BLW to 7300'. No fluid entry. Stop swabbing when dark. Left wellhead chk open. Made fluid check run at 6:30 a.m. Swabbed approx 2 bbls. 450' of fluid in hole. AUG 17 1971
Pulled from 7300'. No oil color and no gas.

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" Liner @ 15,453'

TD 17,776'. PB TD 15,218'. Making fluid fillup check run.
Ran swab to 7300'. No fillup, no gas. RU Halco and loaded tbg w/43 bbls fresh wtr. Pressured to 4000 psi. Built csg press to 1000 psi. Worked press up to 4900 psi. Started feeding into formation at ¼ B/M. Pmpd in 2 bbls w/press increasing to 5100 psi. Increased press to 5900 psi and pmpd in 10 bbls wtr at 1 1/3 B/M w/no press break. Immed. press drop to 5400 psi, 10 min SIP 5400 psi. RD Halco. Opened well on chk. Flowed back approx 8 bbls wtr and died. Swbbd down to 7300'. Made check runs to 7300' until dark, no fluid fillup. No water, no gas. On check run this a.m. swbbd approx 2 bbls water from 7300', no oil stain, no gas. AUG 18 1971

Shell-Brotherson 1-11B4 (D) Noble 18,000' Cretaceous Test 7 5/8" Liner @ 15,453'	TD 17,766. PB 15,318/204/282/0. RU Hal for second plug. Tested csg & plug w/2000 psi, pumped away w/1000 psi. Circ & cond mud. Tripped in w/7 5/8" RTTS tool and set at 11,391. Tested liner lap,9 5/8" csg, and BOP's to 2000 psi for 10 min, held ok. AUG 4 1971
Shell-Brotherson 1-11B4 (D) Noble 18,000' Cretaceous Test 7 5/8" liner @ 15,453'	TD 17,766. PB 15,218/204/282/0. Circ hole clean. Tested csg from 15,114 to sfc w/2000 psi for 10 min, ok. Circ and cond mud. Sqz'd away 150 sx cmt below RTTS tool. Set at 15,114 and staged cmt to 15,214. Drld out to 15,218. Circ hole clean. Tested plug w/2000 psi for 10 min. ok. AUG 5 1971
Shell-Brotherson 1-11B4 (D) Noble 18,000' Cretaceous Test 7 5/8" Liner @ 15,453'	TD 17,766. PB 15,218/204/283/0. Nippling down BOP's. Laid Down DP. AUG 6 1971
Shell-Brotherson 1-11B4 (D) Noble 18,000' Cretaceous Test 7 5/8" Liner @ 15,453'	TD 17,766. PB 15,218/204/286/0. WOCR. Nippled down BOP's. Cleaned mud tanks. RD gas busters and BOP manifolds. Released rig 12 a.m. on 8/6/71. AUG 9 1971
Shell-Brotherson 1-11B4 (D) 18,000' Cretaceous Test 7 5/8" liner @ 15,453'	TD 17,766. PB 15,218. WOCR. AUG 10 1971
Shell-Brotherson 1-11B4 (D) 18,000' Cretaceous Test 7 5/8" Liner @ 15,453'	TD 17,766. PB 15,218. Cleaning up location; prep to MICR. AUG 11 1971
Shell-Brotherson 1-11B4 (D) 18,000' Cretaceous Test 7 5/8" Liner @ 15,453'	TD 17,766. PB 15,218. MI&RUCR. AUG 12 1971
Shell-Brotherson 1-11B4 (D) 18,000' Cretaceous Test 7 5/8" liner @ 15,453'	TD 17,766. PB 15,218. Running tbg w/6¼" bit. Finished hauling in and conditioning mud to 13.2#/gal. Installed 2 7/8" pipe rams and Shaeffer BOP's. Started picking up and running 2 7/8" tbg. Circ btms up every 1,000'. AUG 13 1971

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" liner @ 15,453'

TD 17,766. PB 15,218. Running CIBP. Made additional fluid entry run from 7300. No fillup. Loaded tbg w/mud. Removed 7 1/16" - 10,000# Christmas Tree. Pulled tbg up to clear seal assembly from pkr. Displ mud load and approx 8000' wtr from from lower tbg thru chk w/mud. No gas or oil off btm. Circ & cond mud to 13.1+ #/gal x 45 vis. Pulled tbg, singled down 124 jts. (stdg remainder). Pulled 11" 10,000# x 7 1/16"-10,000 tbg spool from BOP stack. Made up companion flange adaptor spool. RU (OWP) to run 7 5/8" 39# CIBP. AUG 19 1971

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" liner @ 15,453'

TD 17,776. PB 14,680' (CIBP). Running 2 7/8 production tbg string. Ran Bkr 7 5/8" 39# BP and set @ 14,680, top of plug. Pull WL setting tool. Filled hole & closed blind rams. Press to 1400 psi and held 15 min, o.k. Bled off. Ran Bkr 9 5/8" 47# Model "D" w/flapper valve and set @ 11,000, top of pkr. Pulled WL setting tool. RD (OWP). Retrieve wire bushing from csg spool. Chg'd 2 7/8" for 2½".pipe rams in BOP. Ran 124 jts new K-55 SS 8 rd thd. Range 3, 14# ST&C csg heat string. 4,933.56' w/belled open ended @ 4,952.56' (BIE = 19' corrected). Landed on donut. RD csg tools. Pulled 11" x 10,000# BOP stack. Installed 11" x 10,000# x 7 1/16" x 10,000# tbg hangar spool. Packed spool and tested packoff to 10,000#. Okay. Mounted 7 1/16" x 10,000# BOP stack. Picked up Bkr open ended 5" prod tbg w/double-seal latching assembly, Bkr Model "L" on & off seal connector w/2.250 ID plug receptacle without plug, 1 jt N-80 2 7/8" tbg, Bkr 2.310 Model "L" sliding sleeve in closed position. Running in hole w/2 7/8" N-80 tbg string. AUG 20 1971

Shell-Brotherson
1-11B4
(D)
18,000 Cretaceous Test
7 5/8" liner @ 15,453'

TD 17,776. PB 14,680 (CIBP) Prep to swab. AUG 23 1971
On 8-20-71, ran equipment as reported with total of 364 jts 2 7/8" tbg + 1 N-80 2 7/8" x 9.90'. Sub below top jt. Latched onto Model "D" pkr at 11,000'. Set donut in head with 4,000# on pkr in mud. Pulled 20,000# on pkr. SD 20,000# on pkr, held okay. Unjayed from on & off tool and spaced out. Attempted to latch onto on & off receptacle; unable to latch. Pulled tbg and built centralizer bows for 2 7/8" tbg x 9 1/8". Installed above off & on seal overshot. Ran back in hole. Latched on and pulled 15,000# over weight of tbg, ok. Unstung seal assembly from pkr. Picked up to clear top of pkr. Closed tbg rams. RU (Halco). Displaced mud from tbg and csg annulus until clean, with approximately 165° water by conventional circ. Cont'd.

Cont'd.
Displaced flush water with fresh water heated to 165° inhibited w/1 gal Visco M 15-C + 1# Visco 3601/10 bbls. wtr. Attempted to sting into Model "D" pkr; could not open flapper valve. Press'd tbg and annulus to 1500 psi/10,000# set-down st, could not open flapper. Removed donut from tbg. Attempted to spud into pkr, no success; repress'd tbg & csg to 2,000 psi; still could not open flapper valve. Worked press to 3,000 psi, opened flapper valves, and bled csg to 0. Tbg press held at 2700. Pulled 15,000# against latch, ok. Landed tbg on donut with 8000# on pkr. Removed 7 1/16 10,000# (BOP) stack. Installed seals & tested. Seals on 7 1/16 x 10,000# Christmas tree. Tested csg to 1000 psi with tbg open, held 10 min, ok. No tbg bleed back. Tested tbg & head to 3000 psi, ok. Pressure tested OWP's complete lubricator to 5000 psi. Wtr press held ok. Ran first gun for Group I perfs. Perf 14,496-14,502, 14,507-14,510, 14,528-14,532 with (2) ceramic jets/ft. 300 psi buildup in 2 min, 350 psi in 5 min, 500 psi in 8 min, 650 psi in 25 min, decreased to 300 psi w/tools out of hole w/gun. Made second run on Group I Perfs. Perfs 14,459-14,464 and 14,474-14,480 with (2) ceramic jets/ft. No added buildup. Press'd down to 500 psi when out of hole w/gun. Pulled lubricator. Instld. cap & gauge. Left closed in till day light. 1500# buildup SI press in 10 hrs. Going into hole w/first gun of Group 2 Perfs. On 8-23-71, perf Group 2 13,727-13,742, 13,751-13,756, 13,795-13,800, 13,814-13,819 in 2 runs w/2 DCP ceramic jets/ft. Perf Group 3 13,225-13,228, 13,263-13,266, 13,274-13,278' in 2 runs w/(2) ceramic jets/ft. No misruns. Had some trouble working, freed gun through sliding sleeve. No drag on last gun run. Press ranging from 2600 psi w/gun on btm to as low as 950 psi w/gun in lubricator. Press with last gun in lubricator = 1700#. Average complete run time 3¼ hrs. Pulled lubricator and installed cap. 10-hr pressure buildup to 3000# CP 0. Opened well, bled off. AUG 2 3 1971

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" liner @ 15,453'

TD 17,776. PB 14,680 (CIBP). Attempting to work into heavy mud at 5300' w/sinker bars. Well flowed back approx 10 bbls load water, bled to 0. Started swabbing. Swabbed approx 56 bbls load water, 42 bbls heavy mud from 10,200'. Shut swab. Well cont'd to flow small amt of gas. Ran swab; FL at 5300'. Could not work into mud. AUG 2 4 1971

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" liner @ 15,453'

TD 17,776. PB 14,680 (CIBP).
Taking 15 min pressures. Ran sinker bars and jars. Pmp'd 5 bbls diesel down tbg. Worked through bridge. Ran bars to 6000'. Worked up & down through bridge. Pulled bars, ran swab & resumed swbbg, heavy w/mud. Swbb'd down to 10,200'. Tbg bridged at 1900', 2nd time after swbb'g approx 3 hrs and 3rd time at approx 5 p.m. at 900'. Worked through each time. Swbb'd approx total of 50 bbls mud. Mud off btm 10,200', gas cut w/trace of oil. RU (Hall). SITP 50 psi. Mixed 1% KCL in fresh wtr. Started pumping. Caught fluid w/31 bbls in tbg. W/38 bbls in tbg, started feeding into formation at approx 4800 psi, building to 5200 with 49 bbls in tbg. SD, no bleed-off. Press csg annulus to 1500 psi w/rig pump. Pmpd total of 80 bbls treated wtr down tbg. Displaced wtr approx 400' below pkr at 11,000'. FPP 5500 psi, ISIP to 5250#. AUG 25 1971

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" liner @ 15,453

TD 17,776. PB 14,680 (CIBP). Prep to continue perfg.
15 min SI press drop to 5150 psi. Bled back 5 bbls, press dropped to 4800. RD (Halco). Bled approx 10 bbls to tanks through chk, bled to 2000 psi. Finished RU (OWP). Ran to perf. Press at 2100 psi; on btm, press 1950 psi. Perf group 4, 13,087-13,090 w/2 DCP jets/ft. Pulled out of hole w/2700 psi TP. Attempted to go in hole w/second gun, 3000 psi. Could not get below 600'. Pulled into lubricator. RU hot oil truck on heat string. Heated 1½ hrs. Tried gun & ran to shot zone. On btm w/3900 psi TP. Flowed approx 5 bbls through chk, approx 2-3 bbls mud-cut oil, then clear wtr. Press down to 2000 psi. Reset on collars. Perf 12,986-12,990 & 12,994-13,000' w/2 DCP jets/ft. Started out of hole, one-way valve on brief lubricator failed at 12,000. Closed WL BOP, opened chk, bled well to 200 psi. Opened WL BOP, pulled out of hole using safety pack-off. Laid down lubricator, capped, SI well. 9 hrs SI press build-up to 4100 psi. Opened well at 6:30 this a.m., flowed approx 2 bbls fluid, small amt of oil on top of flow. TP down to 1400 psi.

AUG 26 1971

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" liner @ 453

TD 17,776. BP 14,680 (CIBP). Perforating.
3-hr press buildup = 4100 psi. Chk'd grease lubricator = 4100 psi. Worked okay. Bled press to 100 psi through chk. Perf'd 12,905-12,908, 12,910-12,915, 12,942-12,946, 12,950-12,952 and 12,958-12,961. Locator on #1 tools out. Found line going bad. Chg'd out shooting truck. 12-hr press buildup-3800 psi TP, 0 CP.

AUG 27 1971

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" liner @ 15,453

TD 17,776. PB 14,680 (CIBP). Flowing to battery. Perf 12,858-876 and 12,810-814 w/2 DCP jets/ft. Flowed to burn pit to clean up mud. SI @ 8:30 p.m. 8-27 w/700 psi, after ½ hr 2700 psi, 2 hrs 4200 psi. Press annulus to 1200 psi, TP 48 psi. SIP 6 a.m. 8-28 5200 psi. Op well to pit. Bled down to 1500 psi, csg annulus to 0. At 7 a.m. 8-29 flowed well to pit to clean up mud. Turned to battery thru heater treater. Perf 12,768-773, 12,739-742, 12,707-712, 12,694-702, 12,644-646, 12,615-622, 12,546-548, 12,536-538, 12,518-522 w/2 DCP jets/ft while flowing on various chk sizes to suit shooting line travel. Turned to burn pit to clean up mud. Returned to treater at 5 p.m. Approx 16-hr prod 684 bbls, 534 bbls to tank, 150 bbls to load treater to 7 a.m. 8-29-71. Flowed on 35/64" chk at 500 psi. Perf 12,496-12,500, 12,370-378, 12,322-329, 12,310-316 w/2 DCP jets/ft varying chk size to fit shooting line travel. FTP 1000 psi on 35/64" chk at 4 p.m. 24 hr prod = 1070 BO w/2.188 MCF gas (GOR 2044). 40-hr prod = 1754 BO. AUG 3 0 1971

1600 psi, 1½ hr

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" liner @ 15,453

TD 17,776. PB 14,680. Flowing to battery. Perf 12,270-276 w/2 DCP jets/ft. RD (OWP). Started RD (Ford). SI well @ 1 p.m. At 2 p.m. CP=0. Pulled hot oil circ pump from csg to complete RD. CP=0. At 2:15 p.m. CP = 4400 psi. Tied flow connections back to chk. Resumed flowing to attempt to draw CP down. CP and TP dropped at same rate. Cont'd flowing well. Mixing mud and raising wt to 16.6#/gal. Prod 1,028 BO and 1,868 MCF gas in last 24 hrs on 38/64" chk. FTP 900 psi, CP 750 while circ hot wtr down heat string. Lost approx 300 BW to tbg while circ heat string. Show of gas and oil in circulated water. AUG 3 1 1971

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" liner @ 15,453

TD 17,766. PB 14,680 (CIBP). Prep to chk for tbg leak. Mixed & cond approx 1200 bbls mud to 16.6#/gal. At rpt time FTP 560 psi, CP 50 psi. Circ csg returns, 60-80% oil. Approx 30 B/H circ wtr returning up tbg. Prod 1,413 BO and 2,183 MCF gas, and rec'd approx 600 bbls circ wtr up tbg in 24 hrs.
CORRECTION: Please note corrected TD. SEP 1 1971

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" liner @ 15,453'

TD 17,766. BP 14,680 (CIBP). Running 2.318 gauge ring. Flowed to battery to relieve press. RU (OWP). Ran collar locator to chk tbg for collar splits, etc. Logged from Xmas tree to second csg coupling below pkr. Possible leak in joint 1874-1905. RD (OWP). RU White WL Serv. Ran Bkr 2.250 blanking plug on WL. Stopped at 9077. Could not work thru. Att to work out of hole. Latched in collar at 853'. Sheared off. Ran overshot to 853 to retrieve prong. Blew tools up hole w/2000 psi on tbg and csg. Ran overshot to retreive hull. Plug body moved up hole to 790'; retrieved plug. Ran 2 3/16" gauge ring to 10,900'. Had to drive through at 977'. Pulled gauge ring. Flowed well to daylight, RU WL. Ran 2.318 gauge tool to 5100'. Flowed 1134 BO and 1,983 MCF gas. Cum oil prod in 112 hrs 5329 BO. At report time flowing on 36/64" chk at 200 psi FTP. SEP 2 1971

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" liner @ 15,453'

TD 17,766. PB 14,680 (CIBP). Flowing to battery. Pulled gauge rings. Ran Bkr 2.250 blanking plug. SI one hr. Press built up while running plug in hole. Let press build to 3000 psi. Set plug in nipple. Sheared off, pulled setting tool. Blew well down, TP to 2000 psi, CP to 200-250 psi. Could not bleed any lower. SI well. Tbg and csg built at rate of 20#/min. Pumped hot water down 5½ csg-1 hr. Resumed flowing to battery. Flowed 1,034 BO and 1,834 MCF gas in 21 hrs on 36/64" chk, 670 FTP. Total prod in 130 hrs, 6,363 BO. SEP 3 1971

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" liner @ 15,453'

TD 17,766. PB 14,680 (CIBP). Flowing to btry. RU (OWP). Ran tracer survey and located leak in tbg. Approx @ 743-747. Ran tools to btm. Found blanking plug to be seated in Bkr sliding sleeve @ 10,979 (WL). All press remained relatively constant throughout survey. RD (OWP). Shot FL 9-5-71. FL in 9 5/8" csg @ 1320. CP 1000 psi. Calculated FL 5½" csg @ 504'. CP 650 psi. Flowed last 96 hrs as follows:
9-3 - 24 hrs, 1123 BO and 2090 MCF gas on 32/64" chk w/620 FTP.
9-4 - 24 hrs, 1068 BO and 1974 MCF gas on 36/64" chk w/660 FTP.
9-5 - 24 hrs, 1097 BO and 2041 MCF gas w/610 FTP.
9-6 - 24 hrs, 1031 BO and 2030 MCF gas on 41/64" chk w/490 FTP.
Cum prod in 226 hrs 10,672 BO. SEP 7 1971

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" liner at 15,453'

TD 17,766. PB 14,680 (CIBP). Flowing. On 24-hr test, well flowed 1141 BO, 1984 MCF gas on 37/64" chk w/330 psi TP. SEP 8 1971

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" liner @ 15,453'

TD 17,766. PB 14,680 (CIBP). Flowing. Prod 1,092 BO and 1,992 MCF gas in 24 hrs on 42/64" chk w/430 psi FTP. SEP 9 1971

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" liner @ 15,453'

TD 17,766. PB 14,680 (CIBP). Flowing. On 24-hr test, well flowed 1086 BO, and 1884 MCF gas on 38/64" chk w/450 psi FTP. (Addition to wire of 9-8-71. Rig released 6 p.m. 9-7-71)
SEP 10 1971

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" liner @ 15,453'

TD 17,766. PB 14,680 (CIBP). Flowing.
On 24-hr tests, flowed as follows:

Date	BO	MCF	Chk	FTP
9-10	1242	1874	39/64"	450
9-11	1061	1880	29/64"	380
9-12	1078	1842	40/64"	360

SEP 13 1971

Shell-Brotherson 1-11B4 (D) 18,000' Cretaceous Test 7 5/8" liner at 15,453	TD 17,766. PB 14,680 (CIBP) Flowing. On 24-hr test flowed 1140 BO and 1886 MCF on 40/64" chk w/FTP 400. SEP 14 1971
Shell-Brotherson 1-11B4 (D) 18,000' Cretaceous Test 7 5/8" liner at 15,453'	TD 17,766. PB 14,680' (CIBP) Flowing. On 24-hr test, flowed 1148 BO, 1827 MCF gas on 41/64" chk w/410 FTP. SEP 15 1971
Shell-Brotherson 1-11B4 (D) 18,000' Cretaceous Test 7 5/8" liner at 15,453'	TD 17,766. PB 14,680 (CIBP) Flowing. On 24-hr test, flowed 1088 BO and 1816 MCF gas on 40/64" chk w/400 psi FTP. SEP 16 1971
Shell-Brotherson 1-11B4 (D) 18,000' Cretaceous Test 7 5/8" liner at 15,453'	TD 17,766. PB 14,680 (CIBP). Flowing. On 24-hr test, flowed 1145 BO and 1812 MCF gas on 40/64" chk w/425 psi FTP. SEP 17 1971 (Will disc rept until remaining completion work done)
Shell-Brotherson 1-11B4 (D) 18,000' Cretaceous Test 7 5/8" liner at 15,453'	TD 17,766. PB 14,680 (CIBP). Prep to fill tbg w/10# SW. (RRD 9-17-71). MI&RU Ford Tool Rig to fix tbg leak & finish perf'g. MI&RU Marshall WL Service & checked for paraffin to 5000', ok. Op'd well to battery & flowed down TP to 250 psi. With well flowing, displaced oil & gas in 5½-9 5/8" annulus & 5½-2 7/8" annulus by pmpg fresh wtr down 9 5/8" csg & returning fluid through hole in tbg at 745'. Max press 800 psi at 1 bbl/min. OCT 20 1971
Shell-Brotherson 1-11B4 (D) 18,000' Cretaceous Test 7 5/8" liner at 15,453'	TD 17,766. PB 14,680 (CIBP). Prep to bleed off press. 12-hr SITP 250. MI&RU Hal. Bullheaded 64 bbls 10# SW into tbg & displaced 2 7/8-5½" annulus from hole in tbg at 745' to surface w/10# SW. Had gas in tbg & both annuli. SI well for ½ hr and tbg & both csgs had 600 psi. 3 hr SITP = 1500. Pmpd 10# SW down 9 5/8-5½" annulus & displaced 9 5/8-5½" & 5½-2 7/8" annuli w/10# SW. Closed 5½-2 7/8" annulus & bullheaded 65 bbls 10# SW down tbg through hole at 745'. Also op'd tbg and displaced tbg from 745' to surface. Displaced at 4 B/M & max press of 2500 psi. ½ hr SITP = 1700 psi. OCT 21 1971

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" liner at 15,453'

TD 17,766. PB 14,680 (CIBP). No report.

OCT 2 2 1971

Shell-Brotherson
1-11B4
(D)
18,000' Cretaceous Test
7 5/8" liner at 15,453'

TD 17,766. PB 14,680 (CIBP). Prep to swab. Bled tbg & csg pressures down to 100 psi. Pmpd 25 bbls 10# SW down 9 5/8" csg, out 5½" csg and out 2 7/8" tbg. Pressure would still not go to 0. MI&RU McC. Cut 1-½" hole at 10,865. Pulled out of hole. RD McC. Pmpd 15 bbls 10# SW down tbg. Pressure increased to 1700. Pmpd 80 bbls 10# SW down 9 5/8 csg, out 5½" csg while holding 1000 psi on 5½". ISIP on tbg & both annuli-700 psi, dropped to 500 psi in 4 hrs. Put backpressure valve in donut and Xmas tree. Installed 6" series 1500 hydraulic BOP. Bled 5½" csg to pit for ½ hr, SW only on returns. 5½" csg pressure-0. Picked up tbg w/check valve in place, unlatched from Model "D" pkr w/tbg on vacuum. Removed donut and backpressure valve. Installed hydraulic stripper rubber. RD&MO Hal. Pulled tbg laid down in singles. On 24th jt, tbg had split starting at collar for 45 inches down jt and 1" wide. Laid down all tbg in singles, Bkr FSG plug not in tbg. Ran in hole w/4½" lead impression block on WL. Impression showed no signs of FSG plug, only indicated top of Model "D" pkr. Ran production string as follows: Bkr Model "B" expendable plug, 10' 2 7/8" N-80 tbg nipple. sealed and latched from Model "D", 2.250" ID nipple for FSG plug on-off seal connector, 2 jts 2 7/8" EUE N-80 tbg w/1 centralizer on each jt. 367 jts 2 7/8" EUE N-80 tbg. Pmpd 10# SW down 5½" csg & through flapper in Model "D" to insure no pressure under flapper before latching into "D". Pmpd 10 bbls at 500 psi, fell instantly to 300 psi. Latched into "D". SD and pulled 20,000# over weight of tbg on Model "D" to insure latching. Spaced out tbg w/(1) 6' 2 7/8" N-80 sub joint, one full jt down from donut. Planted tbg on donut w/10,000# set-down and Cameron check valve in donut. Pulled off BOP, installed Cameron 10,000# 10,000 psi working pressure Xmas tree. Tested Xmas tree flange to 9000 psi off-on tool to 4000 psi and both held ok. Model "D" (11,000' tbg tail) at 11,012' to ¼ ID nipple at 10,997', off-on tool at 10,997. SD overnight. RU to swab. Swb'd FL to 2500' to balance hydrostatic pressure w/BHP. MI&RU Marshall WL Service. Ran jars & sinker bars to knock out Bkr Model "D" plug in btm of tbg. Pulled out of hole. 14-hr SITP-0. OCT 2 5 1971

Form OGCC-1 b

THE STATE OF UTAH
DIVISION OF OIL AND GAS CONSERVATION

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Shell Oil Company (Rocky Mountain Division Production)

3. ADDRESS OF OPERATOR: 1700 Broadway, Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1520' FNL and 1320' FEL Section 11

5. LEASE DESIGNATION AND SERIAL NO.: Patented

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME: Brotherson et al (Unit)

8. FARM OR LEASE NAME: Brotherson et al

9. WELL NO.: Unit 1-11B4

10. FIELD AND POOL, OR WILDCAT: Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: C NE Section 11-T2S-R4W

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6198' KB

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[X]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			[ ]
(Other)			[ ]				

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

Acidized well with 55,000 gal 15% HCl to communicate all perfs with formation and put well back on production.

18. I hereby certify that the foregoing is true and correct

SIGNED K R Gruden TITLE Division Operations Engr. DATE June 16, 1972

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

COMMUNICATION OF PERFS WITH FORMATION — ALTAMONT

SHELL OIL COMPANY | LEASE SHELL-BROTHERSON | WELL NO. 1-11B4

DIVISION ROCKY MOUNTAIN | ELEV 6198 KB

FROM: 6-1 - 6-7-72 | COUNTY DUCHESNE | STATE UTAH

JUN 9 1972

UTAH

ALTAMONT

Shell-Brotherson 1-11B4 (Communicate all perfs w/formation)

"FR" TD 17,766. PB 14,680 (CIBP). Preparing to flow well. AFE 58260 provides funds to communicate perfs in formation. SITP 1500 psi. MI&RU Dowell to acidize well. Pumped 55,000 gals 15% HCl containing the following additives per 1,000 gals: 3 gals A-170 3 gals F-52, 20# J-133, 30# OS-160 (Wide-Range Unibeads) and 30# OS-160 (Button Unibeads), and 2 gals W-27 non-emulsifier. Dropped 300 phenolic balls (1.4 density) 1" balls in first 1,000 gals of acid. Dropped 500 phenolic balls (1.4 density) 7/8" balls in balance of acid job. Flushed w/9500 gals fresh wtr containing 5# per 1000 gals J-120. All fluids preheated to 80°. Max rate - 12 B/M, avg 9½ B/M. Max press 7700 psi, avg 6200. Final pump press 4,900. ISIP 2500, in 15 min to 1300 psi to 1000 in 30 min, 1500 psi overnight. Held 3000 psi on csg during job. With 1000 psi on 9 5/8" annulus, pressured 13 3/8" x 9 5/8" annulus. Could not pump into it. JUN 1 1972

Shell-Brotherson 1-11B4 (Communicate all perfs w/form)

TD 17,766. PB 14,680 (CIBP) Flowing. On 22-hr test, well flowed 2204 BO, 53 BW and 933 MCF on 18/64" chk w/2440 FTP and 0 CP. JUN 2 1972

Shell-Brotherson 1-11B4 (Communicate all perfs w/form)

TD 17,766. PB 14,680. (CIBP). Flowing. On 24-hr tests, rates as follows:

Date	BO	BW	MCF	Choke	FTP	CP
6/2	1360	0	1695	18/64"	2460	0
6/3	1147	0	1047	10/64"	2830	0
6/4	574	0	995	12/64"	2850	0

JUN 5 1972

Shell-Brotherson 1-11B4 (Communicate all perfs w/fm)

TD 17,766. PB 14,680 (CIBP). Flowing. On 24-hr test, well flowed 523 BO and no wtr w/803 MCF gas on 12/64" chk w/2900 psi FTP and zero CP. JUN 6 1972

Shell-Brotherson 1-11B4 (Communicate all perfs w/fm)

TD 17,766. PB 14,680 (CIBP). COMMUNICATION OF PERFS WITH FORMATION COMPLETE. On 24-hr test 4/5/72 prior to communication of perfs, well flowed 537 BO and 102 BW w/1057 MCF gas on 24/64" chk w/675 psi FTP from perfs 11,609-14,532. On 24-hr test ending 6/6/72, well flowed 523 BO and no wtr w/803 MCF gas on 12/64" chk w/ 2900 psi FTP and zero CP from perfs 11,609-14,532. FINAL REPORT. JUN 7 1972

pw

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous
Test
13 3/8" csg at 6502'

6513/205/71/0. Press testing csg; prep to drill DV.
Press tested BOP equip to 3,000 psi. Repaired all leaks. Press tested csg to 2,000 psi, held ok. DEC 2 9 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous
Test
13 3/8" csg at 6502'

6513/205/72/0. Cleaning pits and changing out bottom-hole assembly.
Drilled stage collar and press tested w/2000 psi, ok.
Drilled float collar and press tested w/2000 psi, ok.
Drilled shoe and checked for junk on bottom, no junk.
Tripped out for new bit. Installed DP protector rubbers. DEC 3 0 1970
Mud: 8.9 x 40

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous
Test
13 3/8" csg at 6502'

6742/205/73/229. Drilling.
Drld 229' in 18½ hrs - 12.3'/hr.
Mud: 8.7 x 34 x 8.6 DEC 3 1 1970

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

7397/205/77/655. Drilling. Dev: 4° @ 7104.
Last Bit #31 12¼" 4JS, 3 12's nozzle - 395' in 32½ hrs.
12.1'/hr. Seal failure on No. 3 cone.
DST No. 1 6502-6908
Op 11 min. Op'd w/weak blow, increased to 12" wtr in 4 min.
SI 90 min.
Op 90 min. Op'd w/strong blow immediately (12") continued throughout. No GTS.
SI 270 min.
Recovery: 0.5 BO, 4 bbls OCM (est 30% oil)
Sample Chamber contained: Trc gas at 200 psig
250 cc's mud w/trc oil
Rm=2.2 @ 74° Rmf=2.0 @ 75°
Rm(rec)=2.1 @ 75° Rmf(rec)=2.0 at 74°
IHP 2916, IFP 125-200, ISIP 921 (bldg slowly), FFP 237-265, FSIP 1802 (bldg very slowly), FHP 2925.
BHT 118°F. JAN 4 1971
Mud: 8.7 x 34 x 9.2

Shell-Brotherson
No. 1-11B4
(D) Noble
18,000' Cretaceous Test
13 3/8" Csg at 6502'

7568/205/78/171. Tripping for new bit. Dev: 5° @ 7560.
Last bit run #32 12¼" RB4JS 3 11's nozzle - 660' 58½ hrs.
11.2'/hr - T-2, B-3 seal failures.
Jet plug with rubber - pulled because of high press.
Mud: 8.7 x 34 x 9.2. JAN 5 1971

COMMUNICATION OF PERFS WITH FORMATION — ALTAMONT

SHELL OIL COMPANY | LEASE SHELL-BROTHERSON | WELL NO. 1-11B4
DIVISION ROCKY MOUNTAIN | ELEV 6198 KB
FROM: 6-1 - 6-7-72 | COUNTY DUCHESNE | STATE UTAH

JUN 9 1972

UTAH

ALTAMONT

Shell-Brotherson
1-11B4
(Communicate all
perfs w/formation)

"FR" TD 17,766. PB 14,680 (CIBP). Preparing to flow well. AFE 58260 provides funds to communicate perfs in formation. SITP 1500 psi. MI&RU Dowell to acidize well. Pumped 55,000 gals 15% HCl containing the following additives per 1,000 gals: 3 gals A-170 3 gals F-52, 20# J-133, 30# OS-160 (Wide-Range Unibeads) and 30# OS-160 (Button Unibeads), and 2 gals W-27 non-emulsifier. Dropped 300 phenolic balls (1.4 density) 1" balls in first 1,000 gals of acid. Dropped 500 phenolic balls (1.4 density) 7/8" balls in balance of acid job. Flushed w/9500 gals fresh wtr containing 5# per 1000 gals J-120. All fluids preheated to 80°. Max rate - 12 B/M, avg 9½ B/M. Max press 7700 psi, avg 6200. Final pump press 4,900. ISIP 2500, in 15 min to 1300 psi to 1000 in 30 min, 1500 psi overnight. Held 3000 psi on csg during job. With 1000 psi on 9 5/8" annulus, pressured 13 3/8" x 9 5/8" annulus. Could not pump into it. JUN 1 1972

Shell-Brotherson
1-11B4
(Communicate all
perfs w/form)

TD 17,766. PB 14,680 (CIBP) Flowing. On 22-hr test, well flowed 2204 BO, 53 BW and 933 MCF on 18/64" chk w/2440 FTP and 0 CP. JUN 2 1972

Shell-Brotherson
1-11B4
(Communicate all
perfs w/form)

TD 17,766. PB 14,680. (CIBP). Flowing.
On 24-hr tests, rates as follows:

Date	BO	BW	MCF	Choke	FTP	CP
6/2	1360	0	1695	18/64"	2460	0
6/3	1147	0	1047	10/64"	2830	0
6/4	574	0	995	12/64"	2850	0

JUN 5 1972

Shell-Brotherson
1-11B4
(Communicate all
perfs w/fm)

TD 17,766. PB 14,680 (CIBP). Flowing. On 24-hr test, well flowed 523 BO and no wtr w/803 MCF gas on 12/64" chk w/2900 psi FTP and zero CP. JUN 6 1972

Shell-Brotherson
1-11B4
(Communicate all
perfs w/fm)

TD 17,766. PB 14,680 (CIBP). COMMUNICATION OF PERFS WITH FORMATION COMPLETE. On 24-hr test 4/5/72 prior to communication of perfs, well flowed 537 BO and 102 BW w/1057 MCF gas on 24/64" chk w/675 psi FTP from perfs 11,609-14,532. On 24-hr test ending 6/6/72, well flowed 523 BO and no wtr w/803 MCF gas on 12/64" chk w/ 2900 psi FTP and zero CP from perfs 11,609-14,532. FINAL REPORT. JUN 7 1972

SHELL OIL COMPANY
PRODUCTION LABORATORY WATER ANALYSIS REPORT
DENVER, COLORADO

FROM: – PRODUCTION LABORATORY
DENVER, COLORADO

TO: _____

LABORATORY NUMBER 6525-3
SAMPLE TAKEN October 13, 1971
SAMPLE RECEIVED October 15, 1971
RESULTS REPORTED October 21, 1971

SAMPLE DESCRIPTION

FIELD NO. 3

COMPANY Shell Oil Company LEASE Brotheraon WELL NO. 1-11B4

_____ SEC. 11 TWP. 2S RGE. 4W SUR. _____

DISTRICT _____ FIELD Altamont COUNTY Duchesne STATE Utah

SAMPLE TAKEN FROM

PRODUCING FORMATION Wasatch TOP _____ Sec 11-2S-4W

REMARKS Treater sample

SAMPLE TAKEN BY G. A. Brent

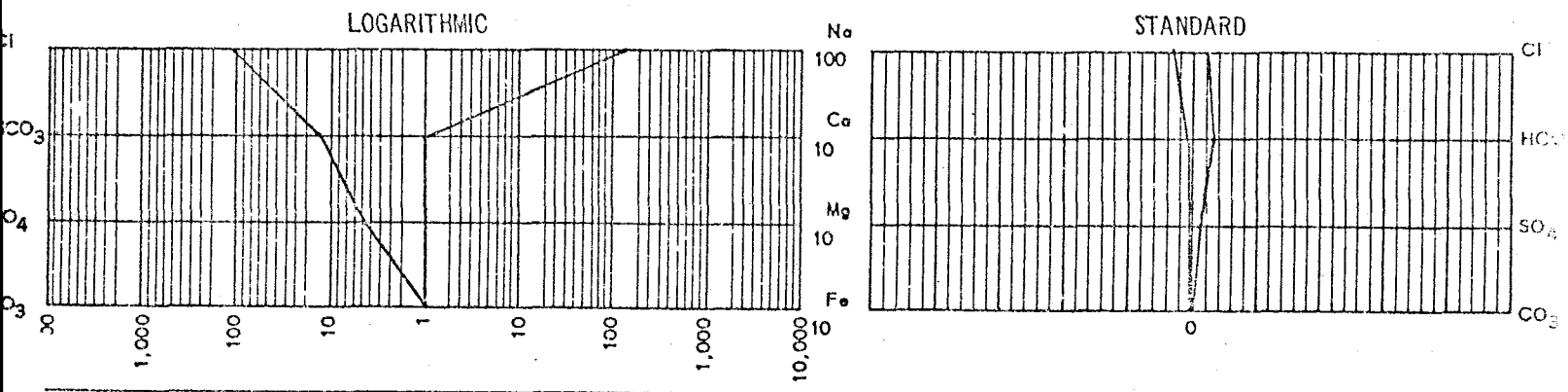
CHEMICAL AND PHYSICAL PROPERTIES

SPECIFIC GRAVITY @60/60° F. 1.008 pH 8.1 RES. 0.77 OHM METERS @ 77°F

TOTAL HARDNESS Mg/L as $CaCO_3$ 55 TOTAL ALKALINITY Mg/L as $CaCO_3$ 741

CONSTITUENT	MILLIGRAMS PER LITER Mg/L.	MILLEQUIVALENTS PER LITER MEQ/L		REMARKS
CALCIUM - Ca^{++}	4	0.20		
MAGNESIUM - Mg^{++}	11	0.90		
SODIUM - Na^{+}	3021	131.42		
BARIUM (INCL. STRONTIUM) - Ba^{++}	0	–		
TOTAL IRON - Fe^{++} AND Fe^{+++}	–	–		
BICARBONATE - HCO_3^{-}	903	14.81		
CARBONATE - CO_3^{--}	0	–		
SULFATE - SO_4^{--}	263	5.47		
CHLORIDE - Cl^{-}	3980	112.24		
TOTAL DISSOLVED SOLIDS	8182	265.04		

MILLEQUIVALENTS PER LITER



( ) AREA OFFICE
( ) EXPLORATION MANAGER
( ) DIVISION OFFICE
( ) DIVISION EXPL. MANAGER
( ) DISTRICT OFFICE
( ) DISTRICT GEOLOGIST
( ) SHELL DEVELOPMENT – EPR

ANALYST R. Cadwell

CHECKED C. E. Davis

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Shell Oil Company

3. ADDRESS OF OPERATOR: 1700 Broadway, Denver, Colorado 80290

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1520' FNL & 1320' FEL Section 11

5. LEASE DESIGNATION AND SERIAL NO.: Patented

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Brotherson et al

9. WELL NO.: 1-11B4

10. FIELD AND POOL, OR WILDCAT: Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: C NE/4 Section 11-T2S-R4W

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6198 KB

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) Prod log, run Cal & gas lift			[X]
(Other) prod log, run Cal & gas lift			[X]				

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

See attachment

APPROVED BY THE DIVISION OF OIL, GAS, AND MINING
DATE: March 11, 1977
BY: P L Driscoll

18. I hereby certify that the foregoing is true and correct

SIGNED R. Plarday TITLE Div. Opers. Engr. DATE 3/8/77

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

cc: USGS w/attachment

*See Instructions on Reverse Side

PROD LOG, RUN CAL & GAS LIFT

SHELL OIL COMPANY	LEASE BROTHERSON	WELL NO.	1-11B4
	DIVISION WESTERN	ELEV	6198 KB
FROM: 1/7 - 3/1/77	COUNTY DUCHESNE	STATE	UTAH
			ALTAMONT

UTAH
ALTAMONT

Shell-Brotherson 1-11B4 (Prod log & Run Cal)	"FR" TD 17,766. PB 14,680 (CIBP). AFE #422497 provides funds to run prod log & caliper survey. The prod log will be run @ a future date. MI&RU wax cutter & cut wax. MI&RU Geotex & ran Cal in liner. RD&MO Geotex. (Report discontinued until further activity) JAN 07 1977
Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)	TD 17,766. PB 14,680. (RRD 1/7/77) AFE #422274 provides funds to equip for gas lift. MI&RU WOW #19. Bled SICP of 800 psi. Circ'd heat string w/prod wtr. Pmp'd 550 bbls to obtain circ. Left well flw'g to bty overnight. JAN 18 1977
Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)	TD 17,766. PB 14,680. Bled press off to 0. Circ'd 5-1/2 heat string to clean up while bleed'g off. Pmp'd tbg vol down tbg; well on sli vac. Removed tree. Installed & tested BOP's. PU tbg off donut & released from pkr. Pulled 3000' 2-7/8 tbg. SD for night. JAN 19 1977
Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)	TD 17,766. PB 14,680. Fin'd pull'g tbg & prod equip. Chng'd tools & BOP's to pull 5-1/2 heat strg. SI for night. JAN 20 1977
Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)	TD 17,766. PB 14,680. Pulled & LD 124 jts 5-1/2 heat string. Chng'd over tools & equip. RIH 2000' w/2-3/8 WP. SD for night. JAN 21 1977
Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)	TD 17,766. PB 14,680. 1/21 RIH w/2-7/8 tbg. PU 15' & pmp'd 3 hrs to get circ. Pmp'd 2500 gals 15% HCl acid down tbg foll'd by 145 BW. SI tbg. Pmp'd 75 BW down csg. SI for night. 1/22 Pmp'd 150 BW down csg; did not get circ to circ acid out. POOH & LD 2-3/8 WP. PU new seal assembly & RIH 2700' 2-7/8 tbg & mandrels. SI well. JAN 24 1977
Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)	TD 17,766. PB 14,680. Fin'd run'g 2-7/8 tbg & prod equip. Ran mandrels in @ 2900', 5300', 7050', 8200', 8950', 9450', 9950', 10,450' & 10,950'. Removed BOP's & installed 5000# tree. Landed tbg w/10,000# tension. RD&MO Western #19. Turned well over to prod. JAN 25 1977
Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)	TD 17,766. PB 14,680. On 24-hr test, gas lifted 324 BO, 100 BW, 340 MCF gas w/1400 psi inj press. JAN 26 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On 24-hr test, gas lifted 425 BO, 629 BW, 750 MCF gas w/1400 psi inj press.

JAN 27 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On 24-hr test, gas lifted 460 BO, 618 BW, 750 MCF gas w/1300 psi inj press.

JAN 28 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. RU Schl to prod log (422497) & found fluid entries @ 11,970-85 (15.6%), 12,090 (62.5%), 12,420 (9.3%), 12,480-540 (12.5%). There is a thief zone @ 12,700' that is taking 12.5% of the fluid. RD Schl & opened well to bty.

JAN 31 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On 24-hr test, prod 602 BO, 700 BW, 978 MCF gas w/200 psi inj press.

FEB 01 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On 24-hr test, gas lifted 234 BO, 829 BW, 806 MCF gas w/200 psi inj press.

FEB 02 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On 24-hr test, gas lifted 454 BO, 711 BW, 800 MCF gas w/1400 psi inj press.

FEB 03 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On 24-hr test, gas lifted 157 BO, 207 BW, 415 MCF gas w/1400 psi inj press.

FEB 04 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On various tests, gas lifted:

Rept Date	Hrs	BO	BW	MCF Gas	Inj Press
2/4:	24	338	558	855	1400
2/5:	24	253	743	975	1400
2/6:	24	418	868	1180	1400

FEB 07 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On 24-hr test, gas lifted 374 BO, 816 BW, 1100 MCF gas w/1400 psi inj press.

FEB 08 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On 24-hr test, gas lifted 381 BO, 753 BW, 1175 MCF gas w/200 psi inj press.

FEB 09 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On 24-hr test, gas lifted 383 BO, 1037 BW, 797 MCF gas w/125 psi inj press.

FEB 10 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On 24-hr test, gas lifted 391 BO, 452 BW, 1010 MCF gas w/0 psi inj press.

FEB 11 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On various tests, gas lifted:

Rept Date	Hrs	BO	BW	MCF Gas	Inj Press
2/11:	8	122	38	160	0
2/12:	24	428	612	750	1400
2/13:	24	441	822	950	1400

FEB 14 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On 24-hr test, gas lifted 417 BO, 759 BW, 865 MCF gas w/1400 psi inj press.

FEB 15 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On 24-hr test, gas lifted 392 BO, 651 BW, 670 MCF gas w/1400 psi inj press.

FEB 16 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On 24-hr test, gas lifted 454 BO, 796 BW, 941 MCF gas w/175 psi inj press.

FEB 17 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On 24-hr test, gas lifted 294 BO, 285 BW, 1255 MCF gas w/900 psi inj press.

FEB 18 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On various tests, gas lifted:

Rept Date	Hrs	BO	BW	MCF Gas	Inj Press
2/18	24	385	599	585	1400
2/19	24	392	764	825	1400
2/20	24	439	846	985	1400
2/21	24	471	866	1110	1400

FEB 22 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On 24-hr test, gas lifted 487 BO, 901 BW, 1120 MCF gas w/1400 psi inj press.

FEB 23 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On 24-hr test, gas lifted 439 BO, 800 BW, 1200 MCF gas w/200 psi inj press.

FEB 24 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On 24-hr test, gas lifted 482 BO, 830 BW, 110 MCF gas w/150 psi inj press.

FEB 25 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On various tests, gas lifted:

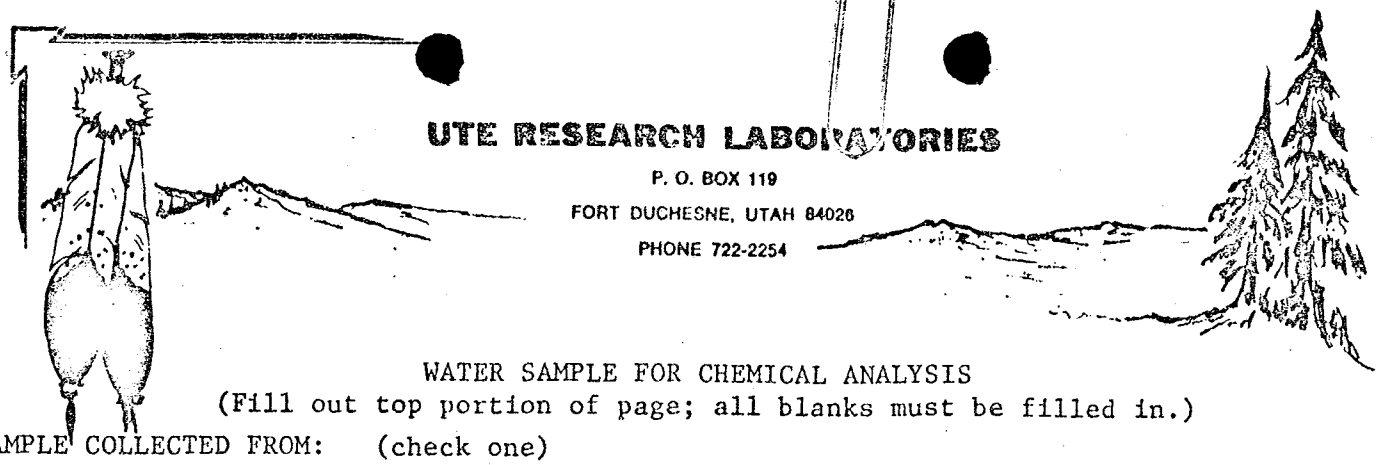
Rept Date	Hrs	BO	BW	MCF Gas	Inj Press
2/25:	24	462	858	1010	225
2/26:	24	443	838	1000	1400
2/27:	24	448	820	750	1400

FEB 28 1977

Shell-Brotherson 1-11B4 (Prod log, run Cal & gas lift)

TD 17,766. PB 14,680. On 24-hr test 1/77 prior to gas lift, flwd avg of 184 BO, 231 BW & 169 MCF gas. On 24-hr test 2/28/77 after work, gas lifted 490 BO, 896 BW, 850 MCF gas w/1400 psi inj press.
FINAL REPORT

MAR 01 1977



UTE RESEARCH LABORATORIES

P. O. BOX 119

FORT DUCHESNE, UTAH 84026

PHONE 722-2254

WATER SAMPLE FOR CHEMICAL ANALYSIS

(Fill out top portion of page; all blanks must be filled in.)

SAMPLE COLLECTED FROM: (check one)

Stream Spring Well

City or Town water distribution system

Other (describe) Sec 11-28-4W

EXACT DESCRIPTION OF SAMPLING POINT:

Shell Oil Co. Well 1-11-B4 Sample No. W-1261

N E Wasatch

STATE ENGINEER'S APPLICATION OR CLAIM NO.

SUPPLY OWNED BY:

PRESENT USE OF SUPPLY:

PROPOSED USE OF SUPPLY:

SAMPLE COLLECTED BY: DATE:

REPORT RESULTS TO:

Address:

DO NOT WRITE BELOW DOUBLE LINE

RESULTS OF ANALYSIS

Resistivity	1.00 OHM Meter		
Turbidity	0 Turbidity Units		
Conductivity	10,000 Micromhos/cm		
pH	8.37		
Total Dissolved Solids	6040 mg/l	Iron (total) as Fe	0 mg/l
Alkalinity(total) as $CaCO_3$	790 mg/l	Iron in filtered sample as Fe	0 mg/l
Aluminum as Al	0.07 mg/l	Lead as Pb	0 mg/l
Arsenic as As	.0005 mg/l	Magnesium as Mg	1.53 mg/l
Barium as Ba	11.0 mg/l	Manganese as Mn	0.02 mg/l
Bicarbonate as HCO_3	778 mg/l	Nitrate as NO_3	0.48 mg/l
Boron as B	12.2 mg/l	Phosphate as PO_4	.015 mg/l
Cadmium as Cd	0 mg/l	Phenols as Phenol	mg/l
Calcium as Ca	21.0 mg/l	Potassium as K	23.0 mg/l
Carbonate as CO_3	12 mg/l	Selenium as Se	mg/l
Chloride as Cl	2399.0 mg/l	Silica as SiO_2	mg/l
Chromium(hexavalent)as Cr	0 mg/l	Silver as Ag	0 mg/l
Copper as Cu	0.01 mg/l	Sodium as Na	1460.0 mg/l
Cyanide as CN	mg/l	Sulfate as SO_4	470.0 mg/l
Fluoride as F	4.9 mg/l	Surfactant as LAS	mg/l
Hardness(total) as $CaCO_3$	59.0 mg/l	Zinc as Zn	0 mg/l
Hydroxide as OH	0 mg/l		

Sample received on 8-14-74

at Ft. Duchesne Salt Lake City

Cash received with sample $ none

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER	5. LEASE DESIGNATION AND SERIAL NO.: Patented
	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	7. UNIT AGREEMENT NAME:
2. NAME OF OPERATOR: Shell Oil Company	8. FARM OR LEASE NAME: Brotherson et al
3. ADDRESS OF OPERATOR: 1700 Broadway, Denver, Colorado 80290	9. WELL NO.: 1-11B4
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1520' FNL & 1320' FEL Section 11	10. FIELD AND POOL, OR WILDCAT: Altamont
	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: C NE/4 Section 11-T2S-R4W
14. PERMIT NO.	15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6198 KB
	12. COUNTY OR PARISH: Duchesne / 13. STATE: Utah

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[X]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[X]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			[ ]
(Other)			[ ]	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

See attachment

APPROVED BY THE DIVISION OF
OIL, GAS, AND MINING

DATE: _____

BY: _____

18. I hereby certify that the foregoing is true and correct

SIGNED R. Plaudis TITLE Div. Opers. Engr. DATE 7/27/78

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

cc: USGS w/attach for info

*See Instructions on Reverse Side

CO, PERF & ACIDIZE — ALTAMONT

SHELL OIL COMPANY

LEASE BROTHERSON ET AL — WELL NO. 1-11B4

DIVISION WESTERN — ELEV 6198 KB

FROM: 6/14 - 7/21/78 — COUNTY DUCHESNE — STATE UTAH

UTAH

ALTAMONT

Shell-Brotherson 1-11B4
(CO, Perf & Acdz)

"FR" TD 17,766. PB 14,680 (CIBP). AFE #428367 provides funds to CO, perf & acidize. 6/13 MI&RU WOW Rig #19. Bled csg to battery & finished bleeding csg & tbg to pit. Pmp'd 100 bbls wtr down tbg & csg & installed BPV. Removed 5000 psi wellhead. Stripped 6" x 11" spool off & installed 10" BOP's.

JUN 14 1978

Shell-Brotherson 1-11B4
(CO, Perf & Acdz)

TD 17,766. PB 14,680. Bled csg to pit. Attempted to release seal assy from Mdl "D" pkr. Worked tbg for 1 hr without success. Picked up power swivel & worked tbg for 2 hrs without success. Pmp'd 200 bbls wtr down csg & 100 bbls down tbg, worked tbg again without success. RD power swivel. MI&RU McCullough tool & ran free point, tbg stuck @ 10,652'±. RD McCullough tool.

JUN 15 1978

Shell-Brotherson 1-11B4
(CO, Perf & Acdz)

TD 17,766. PB 14,680. Pmp'd 100 bbls wtr down tbg & drop'd standing valve. Pmp'd 200 bbls wtr down & press increased from 200 psi to 800, but was unable to set standing valve. MI&RU slickline truck. RIH w/overshot to retrieve stand valve. Hit obstruction @ 10,667' (approx same depth as free point). POOH w/out standing valve. RD slickline truck. MI&RU McCullough tool & ran in hole w/overshot, hit obstruction @ 10,668. POOH w/out standing valve. RD McCullough. MI&RU braided line truck. RIH & tried retrieving standing valve; no success. Changed braided line over to slickline. Note: Obstruction in tbg indicated collasped tbg.

JUN 16 1978

Shell-Brotherson 1-11B4
(CO, Perf & Acdz)

TD 17,766. PB 14,680. 6/16 RIH w/slickline & checked gas mandrels for standing valve, no success. RIH w/2-1/4" impression block & hit obstruction @ 10,667'. Impression block indicates collasped tbg. RIH w/1-1/2" tools; unable to get below 10,667. RD slickline truck. 6/17 MI&RU McCullough tool. Pulled 70,000# tension on tbg, approx 1000# over weight of tbg. RIH w/chemical cutter & tag'd @ 10,668'. Tired find'g tbg collar to orient cut. Started recording 40' jts, logged from 10,500 to 9,900'. Collars lined up w/csg collars. Started pulling out of hole & tool stuck @ 9853'. Worked tbg for 15 mins & tool came free. Started to pick up 30' tbg collars. POOH. Picked up tbg, tbg weighted 55,000# and was free. Rev circ 900 bbls wtr & got 200± bbls oil back. Started POOH.

JUN 19 1978

Shell-Brotherson 1-11B4 (CO, Perf & Acdz)	TD 17,766. PB 14,680. Finished POOH & found tbg chemically cut. RIH w/overshot & latched onto tbg @ 9881±. Pulled 70,000# tension & set tbg in slips. MI&RU slickline truck. RIH w/1-9/16" tbg swedge & tag'd @ 10,668'. Worked swedge for 2 hrs w/out success. POOH. JUN 20 1978
Shell-Brotherson 1-11B4 (CO, Perf & Acdz) JUN 21 1978	TD 17,766. PB 14,680. RU slickline truck & ran 1 9/16" tbg swedge & tag'd collasped spot in 2-7/8" tbg @ 10,668'. Worked swedge for 3 hrs; could not get thru collasped spot. Released slickline truck & WOW Rig #19 @ 12 noon 6/20/78.
Shell-Brotherson 1-11B4 (CO, Perf & Acdz)	TD 17,766. PB 14,680. RU Lyles Oil Tool slickline truck. Ran 1-1/2" swedge & tag'd collasped spot @ 10,662'. Jar'd tbg swedge into spot & bent jars, indicating tbg in collasped spot dog legged. Had 15' of 1-1/4" sinker bars on top of jars. Worked swedge 2 hrs & RD slickline truck. JUN 22 1978
Shell-Brotherson 1-11B4 (CO, Perf & Acdz)	TD 17,766. PB 14,680. RU McCullough & ran 2" OD Chemical cutter in hole, tag'd btm & cut off 2-7/8" tbg @ 10,656'; left 7' stub up above collasped spot. Finished pulling chemical cutter w/rig & POOH. LD overshot + 1st cut off tbg. Pulled 12 more stands tbg & rec'd tbg collar + 6" stub on next jt tbg as cut. Picked up 8-1/2" shoe, 1 jt wash pipe, hyd jars, bumper sub & 6 4-3/4" DC's & ran in hole. JUN 23 1978
Shell-Brotherson 1-11B4 (CO, Perf & Acdz)	TD 17,766. PB 14,680. 6/23 Finished run'g 8-1/2" shoe, wash pipe, hyd jars & bumper sub in hole. Tag'd 9-5/8" collasped spot in csg @ 10,645'. Milled 5 hrs, milled torquing up; mill worn out. Started out of hole. 6/24 Finished pulling out of hole w/8-1/2 OD mill. Mill showed signs of milling over iron inside & out. LD milling shoe & made up new 8-1/2 OD milling shoe. RIH & milled down 6' (10,648-10,655). Circ'd hole clean. Pulled up off fish 30'. Shut in well for Sunday. JUN 26 1978
Shell-Brotherson 1-11B4 (CO, Perf & Acdz)	TD 17,766. PB 14,680. 6/26 Establish circ w/500 bbls prod wtr. Started milling @ 10,651 & milled to 10,656. (Top of cut off tbg + 9-5/8" Collar @ 10,654'). POOH w/8-1/2" mill shoe; shoe worn out on inside as if milling over iron inside, outside not damaged. JUN 27 1978
Shell-Brotherson 1-11B4 (CO, Perf & Acdz)	TD 17,766. PB 14,680. Ran 6-1/4" OD lead Impression Block on swb line. Impression Block shows 2 7/8" cut off tbg looking up. Ran 8-1/2 clusterite milling shoe, wash over pipe, bumper sub & hyd jars. Tag'd btm @ 10,651 & milled 3 hrs. JUN 28 1978
Shell-Brotherson 1-11B4 (CO, Perf & Acdz)	TD 17,766. PB 14,680. Loaded hole & estab circ. Started re-milling @ 10,649' back down to 10,657±'. Milled 10,657-10,659 & mill stop'd. POOH w/8-1/2" mill worn out. Ran 6-1/4" OD lead Impression Block on swb line. Removed Impression of previously cut tbg. JUN 29 1978

Shell-Brotherson 1-11B4
(CO, Perf & Adcz)

TD 17,766. PB 14,680. LD 8-1/8" OD wash pipe & ran 8-1/2" OD lead Impression Block. Tally tbg in hole & set down w/6000#. Cmt @ 10,662' POOH Impression on Block indicates previously chem cut 2-7/8" tbg looking up against wall of 9-5/8" csg; 1/4" of tbg to outside has been sliced over. Tbg has been milled over 10,644-10,659' w/8-1/2" milling shoes. Picked up & ran 5-3/4" OD overshot w/4-1/2" extension bowl w/2-7/8" grapple. Tag'd top of fish @ 10,662'. Rotated over tbg fish & set down. Picked up w/max pull of 12,000#; overshot would not hold solid. Made 4 attempts w/same results; 2-7/8" tbg sliced by mill on outside edge pulling in & not allowing overshot to get full circle of tbg bite. JUN 30 1978

Shell-Brotherson 1-11B4
(CO, Perf & Acdz)

TD 17,766. PB 14,680. No report.

JUL 03 1978

Shell-Brotherson 1-11B4
(CO, Perf & Acdz)

TD 17,766. PB 14,680. 6/30 Worked overshot for 1/2 hr; unable to latch onto tbg, POOH. Found 8' piece of tbg in overshot, btm of tbg is torn & split. Btm of overshot has 2 deep cuts in the skirt. RIH w/8-1/2" impression block on tbg. Set down @ 10,670' w/6000#. POOH, impression block shows 1/4" wide 2" gap. Picked up 6-3/4" OD washover shoe, 4-3/4" bumper sub, hyd jars a 6 4-3/4" DC & started in hole w/tbg. 7/1 Finished RIH & tag'd @ 10,678'. Picked up power swivel & started rev circ. Pmp'd 300 bbls before getting any returns. Circ'd approx 300 bbls oil out. Started milling; milled for 4 hrs & made approx 3'. Mill seems to be worn out. Circ'd tbg clean & LD power swivel. Started POOH. Note: Getting small amounts of fine shale & small amounts of fine metal in the returns from circ'g.

JUL 5 1978

Shell-Brotherson 1-11B4
(CO, Perf & Acdz)

TD 17,766. PB 14,680. 7/5 Bled gas to pit & rev circ'd 900 bbls wtr. Finished POOH, mill was worn flat on btm of mill. RIH w/overshot to fish tbg, (overshot skirt has Kutriet on the inside to dress up the top of the tbg). Picked up 4-3/4" bumper sub, hyd jars & 6 4-3/4" DC. Picked up power swivel & SION. JUL 6 1978

Shell-Brotherson 1-11B4
(CO, Perf & Acdz)

TD 17,766. PB 14,680. Worked overshot for 2 hrs; tag'd w/overshot @ 10,670, unable to get latched on. POOH; overshot skirt was turned in approx 1/2" on btm; tag never got into overshot. POOH & RIH w/6-3/4" shoe, 6-1/2" washover pipe, 4 3/4" bumper sub, hyd jars & 6 4-3/4" DC, tag'd @ 10,678± & broke circ. Started milling; milled approx 2' & received small amt shale. Pulled tbg up 30' & circ'd tbg clean. SION.

JUL 7 1978

Shell-Brotherson 1-11B4
(CO, Perf & Acdz)

TD 17,766. PB 14,680. 7/7 Brk circ & tag'd @ 10,678. Milled 3 hrs & made 3'. LD power swivel & POOH; Kutriet completely gone on mill. RIH w/8-1/2" impress blk. Tag'd w/impress blk @ 10,677 & set down 8000#. Started POOH; tbg hung up 1st 5' off btm. Pulled 3000' tbg & SI for night. 7/8 Fin'd POOH w/impress blk. Blk had a piece of it torn off side approx 4" long; seems to have been torn when blk pulled up. On opposite side is a mark approx 1/2" wide, 1" deep & 1" in from the side. PU 8-1/2" shoe, 30' WP, bumper sub, hyd jars & 6 4-3/4 DC's & RIH. Tag'd @ 10,676. PU power swivel & SI well @ 3 p.m.; RD for repairs.

JUL 10 1978

Shell-Brotherson 1-11B4
(CO, Perf & Acdz)

TD 17,766. PB 14,680. Rev circ 900 bbls wtr & tag'd @ 10,678. Milled for 5 hrs & made 5'; mill seems to be worn out. LD power swivel & POOH. Mill completely worn out. The inside of the shoe indicates we are swallowing some metal. RIH w/8-1/2 shoe, 30' 8-1/8" wash pipe, bumper sub, hyd jars & 6 4-3/4" DC. Picked up power swivel. SION.

JUL 11 1978

Shell-Brotherson 1-11B4
(CO, Perf & Acdz)

TD 17,766. PB 14,680. Brk rev circ & tag'd @ 10,682. Milled 3' in 3 hrs & started to get cmt in returns. Circ'd tbg clean & POOH. LD DC's & tools; shoe worn smooth on btm & side & concaved on btm. PU Bkr 9-5/8 full bore pkr & started in hole w/gas mndrls. SD for night.

JUL 12 1978

Shell-Brotherson 1-11B4
(CO, Perf & Acdz)

JUL 13 1978

TD 17,766. PB 14,680. Set Bkr 9-5/8 full bore pkr @ 10,648 w/16,000# tension & 11 gas mndrls w/valves @ 10,574, 10,089, 9545, 8970, 8426, 7882, 7308, 6764, 6070, 4838 & 2948. Installed 5000# WH & removed BPV. Hooked up flwline & 11" flange leak'g gas. Installed new ring gasket & reinstalled 10" x 6" spool & WH. Hooked up flwline & RD WOW #17. Turned well over to prod.

Shell-Brotherson 1-11B4
(CO, Perf & Acdz)

TD 17,766. PB 14,680. Gauge not available.

JUL 14 1978

Shell-Brotherson 1-11B4
(CO, Perf & Acdz)

TD 17,766. PB 14,680. Gauge not available.

JUL 17 1978

Shell-Brotherson 1-11B4
(CO, Perf & Acdz)

TD 17,766. PB 14,680. On 7-hr test, gas lifted 125 BO, 280 BW, 547 MCF gas w/1140 psi inj press.

JUL 18 1978

Shell-Brotherson 1-11B4
(CO, Perf & Acdz)

TD 17,766. PB 14,680. On various tests gas lifted:

Date	Hrs	BO	BW	MCF gas	Inj Press
7/15	24	531	336	1806	1140
7/16	24	305	107	790	1140
7/17	24	94	341	589	1140

JUL 19 1978

Shell-Brotherson 1-11B4
(CO, Perf & Acdz)

TD 17,766. PB 14,680. On 24-hr test, gas lifted 234 BO, 456 BW, 946 MCF gas w/1280 psi inj press.

JUL 20 1978

Shell-Brotherson 1-11B4
(CO, Perf & Acdz)

TD 17,766. PB 14,680. Final test was 305 BO, 107 BW, gas lifting. The work to repair suspected csg leak was suspended on 7/11/78 & the well placed back on prod prior to starting WO. Well prod 227 BO & 589 BW.
FINAL REPORT

JUL 21 1978

Form OGC-1b

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Shell Oil Company

3. ADDRESS OF OPERATOR: P. O. Box 831 Houston, Texas 77001

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1520' FNL & 1320' FEL

5. LEASE DESIGNATION AND SERIAL NO.:

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Brotherson

9. WELL NO.: 1-11B4

10. FIELD AND POOL, OR WILDCAT:

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 11-T2S-R4W

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6198' KB

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[X]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[X]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			
(Other)			[ ]	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

See attached.

RECEIVED
SEP 18 1980
DIVISION OF OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct

SIGNED _____ TITLE Division Production Engineer DATE 9/15/80

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

REMEDIAL PROGNOSIS

BROTHERSON 1-11B4
SECTION 11, T2S, R4W
DUCHESNE COUNTY, UTAH
ALTAMONT FIELD

PERTINENT DATA:

Elevation (KB): 6198'
Elevation (GL): 6179'
TD: 17,766'
PBTD: 14,680 (CIBP) (Junk: Biwire perf'g gun debris, expendable plug, "FSG" plug)
Casing: 9-5/8", 47#, S-95 & P-110 @ 11,599'
Liner: 7-5/8", 39#, S-95. Hanger @ 10,374'. Shoe @ 15,453'
Tubing: 2-7/8", 6.5#, N-80, EUE to 10,310'
Packer: Baker 9-5/8" Model "D" @ 10,310'
Artificial Lift: Gas lift mandrels with valves @ 3091', 5095', 6384', 7136', 7649', 8192', 8705', 9218', 9731', 10,244'

EXISTING PERFORATIONS:

8/16/71 - 22 perfs, 2 JSPF, 14,746' - 14,756', North Horn Transition, with biwire gun. No recovery this zone; later isolated below CIBP at 14,680'.

8/22-30/71 - 336 perfs, 2 JSPF, 12,260' - 14,530' (CBL depths), M31 to North Horn, with biwire gun.

11/8-11/71 - 198 perfs, 2 JSPF, 11,599' - 14,530' (CBL depths), M2 Transition, with gowinder hollow carrier gun and DML-VI jets.

5/29-30/79 - 453 perfs, 3 JSPF w/120^{o} phasing, 11,654' - 13,794' (CBL depths), M2 - M7, with 4" centralized gun.

PREVIOUS STIMULATION:

5/31/72 - Acid treat 534 perfs 11,599' - 14,530' with 55,000 gallons 15% HCL, using 800 ball sealers. Average 9.5 BPM and 6200 PSI. (Note: this was the first stimulation performed, and was after 225,000 BO and 27,000 BW had been produced.)

1/17/77 - Using 2-3/8" tubing stung through the Model "D" packer at 11,000', spotted 2500 gallons 15% HCL on bottom and let soak overnight. (This was part of work to install gas lift.)

6/1/79 - Acid treat 987 perfs 11,599' - 14,530' with 55,000 gallons 7½% HCL, using 500 ball sealers and 9500# acid flakes. Average 15 BPM and 7000 PSI. Backside required only minor pumping to maintain 2500 PSI (<1 BBL).

9/7/79

CURRENT STATUS:

Averaged 208 BOPD, 385 BWPD, 1496 GOR with an average 800 MCF injection gas for first 27 days of August.

Cumulatives as of 8/27/79 are 1,291,512 BO, 966,392 BW and 2,157,966 MCF (1670 GOR).

PROCEDURE:

1. MIRU workover rig. Kill well with produced water. Remove tree, install and test B.O.P.E. as per field specs (Note: B.O.P.E. must accommodate 9-5/8" equipment.)

2. Pull tubing. Mill and pluck Baker 9-5/8" Model "D" packer at 10,310'.

3. Clean out 7-5/8" liner from 10,374'-11,600'.

4. Run 7-5/8" CIBP and set at 11,500'. Test to ± 3000 psi.

5. Rig up perforators with lubricator (test to 3000 psi) and perforate as per Attachment I.

6. Isolate 7-5/8" liner lap with packer combination as follows (see attached Baker diagram):

   A. Lubricate in 7-5/8" Baker Model "DB" packer with millout extension and Model "F" seating nipple (2.25 ID) with "FSG" blanking plug in place. Set at ± 10,400'.
   B. Lubricate in 9-5/8" Baker Model "DB" packer and set at ± 10,310'.
   C. RIH with ±10,400' of 2-7/8", N-80 tubing with the following equipment from the bottom up:

      (1) Baker Model "E-22" anchor-tubing seal assembly for 7-5/8" packer at ± 10,400'.
      (2) three joints 2-7/8", P-105 tubing

      (3) spacer seal assembly for 9-5/8" packer at ± 10,310'.

7. Locate out and latch into 7-5/8" packer. Test tbg to 6500 psi and annulus to 2500 psi. Land tbg with spacer seal assembly centered in 9⅝" packer. Retrieve blanking plug. Install 10,000 psi tree.

8. Acid treat the interval 10,783'-11,466' (177 perfs) with 20,000 gallons 7-1/2% HCL as follows:

   A. Pump 6000 gallons of acid, dropping one ball sealer (7/8" RCN, 1.2 S.G.) every 100 gallons.
   B. Pump 1000 gallons of acid with 1000# benzoic acid flakes distributed evenly in the acid.
   C. Repeat Step A two more times and Step B one more time.

   TOTALS: 20,000 gallons 7-1/2% HCL, 180 ball sealers, and 2000# benzoic acid flakes.

D. Flush with 4500 gallons of clean produced water.
E. Record ISIP and shut-in pressure for at least 20 minutes.

NOTE: (1) All acid and flush to contain sufficient friction reducing agent for ± 50% friction reduction.
(2) Acid to contain 1# 20-40 mesh RA sand per 1000 gallons.
(3) Acid to contain sufficient inhibitor for 4 hours exposure at 200°F.
(4) Heat all fluids to 100°F.
(5) Hold 2500 psi on annulus during treatment.
(6) Inject acid and flush at maximum rate while not exceeding 9000 psi surface pressure.

9. Run GR log from PBTD to 10, 00'.

10. Open well to flow at maximum rate.

11. If well will produce, move off completion rig and leave on production until it ceases to flow. If well does not produce, proceed to Step 13.

12. MIRU completion rig. Load hole with produced water. Install BOP.

13. Pull tubing with spacer seal assembly and anchor seal assembly. Mill and pluck 9-5/8" packer.

14. Mill and pluck 7-5/8" packer. Millout CIBP and push to ± 14,680'.

15. Run tubing with 9-5/8" retrievable packer and gas lift mandrels and valves. Set packer at ± 10,300'. (Note: utilize gas lift design used prior to this recompletion work.)

16. Put well on production.

Recommended

GLT ESV

G. L. Thompson

Date

CONCUR: J. M. Rogers 11-20-79
J. M. Rogers

9/7/79

Attachment I

REMEDIAL PROGNOSIS

BROTHERSON 1-11B4
SECTION 11, T2S, R4W
DUCHESNE COUNTY, UTAH
ALTAMONT FIELD

NOTE: A. Perforate with a 4" O.D. hollow steel carrier centralized gun loaded with 23.0 gram charges, 3 JSPF at 120° phasing.

B. Record and report wellhead pressure before and after each run.

C. Perforate (from bottom up) each of the following intervals using the OWP GR-CBL-CCL, dated 8/14/71, as depth reference:

	11,272	11,035	10,795
11,466	11,265	11,028	10,790
11,453	11,250	10,972	10,783
11,446	11,241	10,968	
11,438	11,231	10,958	
11,426	11,220	10,950	
11,420	11,209	10,945	
11,414	11,203	10,935	
11,400	11,197	10,924	
11,388	11,181	10,915	
11,373	11,162	10,901	
11,367	11,142	10,890	
11,361	11,123	10,877	
11,354	11,104	10,868	
11,344	11,095	10,847	
11,328	11,083	10,833	
11,308	11,068	10,821	
11,297	11,058	10,816	
11,282	11,052	10,812	

9/7/79

WELL 1-11B4
RIG 17

12/12/79

AFE NO.
DAILY COST $2,500

AUTH AMT $95,000
CUM COST $2,500

12-10-79 STATUS MOVING RIG EQUIP FROM MILES 1-35A4 TO BROTHERSON 1-11B4 & RIGGING UP.

12-8-79 RIG DOWN AT MILES 1-35A4 & STEAM CLEAN!! RIG & EQUIP. MOVE RIG TO BROTHERSON 1-11B4 & SET UP.

WELL 1-11B4
RIG 17

12/12/79

AFE NO.
DAILY COST $2,500

AUTH AMT $95,000
CUM COST $5,000

12-11-79 STATUS KILLING WELL + PREPARE TO PULL TBG.
12-10-79 MOVE !RIG FROM MILES 1-35A4 TO BROTHERSON 1-11B4 + RIG UP!. LOAD CSG + TBG. INSTALL 10 IN. B.O.P'S [redacted]T. FUNDS PROVIDE TO MOVE IN WORKOVER RIG, KILL WELL PULL TBG. MILL + PLUCK 9 5/8 MODEL D PKR CLEAN OUT 7 5/8 LINER FROM 10,374 TO 11,600'. RUN CIBP (7 5/8) + SET! AT 11,500'. PERFORATE. ISOLATE 7 5/8 LINER LAP. LUBRICATE IN 7 5/8 DB + 9 5/8 DB BAKER PKRS, ACID TREAT PERF'S 10,783 TO 11,466 (177 PERF'S) W/20,000 GALLONS 7 1/2% ACID. R!N G.R. LOG. PRODUCE WELL UNTIL IT CEASES TO FLOW. THEN RUN GAS LIFT MANDRELS AS PULLED.

WELL 1-11B4
RIG 17

12/12/79

AFE NO.
DAILY CIST $3,042

AUTH. AMT. $95,000
CUM. COST $8,042

12-12-79 STATUS RUNNING BAKER 9 5/8 PKR PICKER TO PLUCK MODEL D PKR AT 10,310'.
12-11-79 FINISH FILLING WELL. UNSTRING FROM MODEL D PKR AT 10,310 !P.O.O.H. LAY DOWN GAS MANDRELS. REMOVE 7 1/16 X 11 TBG HD SP!OOL. RE-INSTALL DOUBLE SPOOL 10 X 11 + 10 B.O.P. S.D. 7 P.M.

WELL 1-11B4
RIG 17

12/13/79

AFE # 583257
DAILY COST $3,041

AUTH. AMT. $95,000
CUM. COST $11,683

12-13-79 STATUS P.O.O.H W/MILLED OVER 9 5/8 IN. BAKER MODEL D PKR.
12-12-79 RAN 9 5/8 IN. BAKER PKR PICKER. STRING INTO PKR AT 10,310'. MILL ON PKR (7 HRS. TO CUT OVER PKR) P.O.O.H. 36 STDS TBG. DRAGGING 10 TO 20,000 LBS THROUGH EACH 9 5/8 IN. CSG COLLAR AS PULLED. S.D. 8 P.M.

WELL 1-1184
RIG 17

AFE # 583257 12/14/79 AUTH. AMT. $95,000
DAILY COST $2,974 CUM. COST $14,657

12-14-79 STATUS RIGGING UP O.W.P. TO RUN 7 5/8 IN. BAKER CAST IRON BRIDGE PLUG, PERFORATE & RUN 7 5/8 IN. BAKER D B PKR + 9 5/8 IN. BAKER MODEL D PKR.

12-13-79 FINISH POOH RECOVERED 9 5/8 IN. MILLED OVER PKR O K LAY DOWN 9 5/8 IN. PKR. PICKER. PICK UP BAKER 7 5/8 IN. MILL & RAN IN HOLE TO 11,600'+. ENCOUNTERED NO SCALE! POOH INSTALL PERFORATING FLANGE ON TOP OF 10 IN. BOP S.D. 7 PM.

WELL NO. 1-1184
RIG 17

12/15-17/79

AFE NO. 583257 AUTH. AMT. $95,000
DAILY COST $2,650 CUM. COST. $22,305

12-17-79 STATUS RUNNING 7 5/8 IN BAKER LATCH SEAL ASSEMBLY + 9 5/8 IN. 12-17-79 REMOVE 10 IN. BOP + SPOOL. REINSTALL PTBG. HD SPOOL + 6 IN. BOP. PICK UP 7 5/8 IN BAKER! LATCH ASSEMBLY W/2 SEALS, 81 JTS OF 2 7/8 IN N-80 6.5 LB TBG + 8' + 1 10' 2 7/8 IN N-80 SUBS, THEN 10' OF 4.476 O.D. 9 5/8 IN SEAL ASSEMBLIES + 10 MIRE STDS OF TBG. S.D. 5 P.M.

WELL 1-1184
RIG 17

AFE NO. 583257 12/18/79 AUTH. AMT. $95,000
DAILY COST $20,828 CUM. COST $43,133

12-18-79 STATUS PREPARE TO REMOVE 10,000 LB FRAC TREE, INSTALL 6 IN. B.O.P. UNSTRING FROM BAKER 7-5/8 IN. D.B. PKR AT 10,396', PICK UP TBG + CIRCULATE IN REVERSE TO CLEAN PARAFFIN OUT OF TUBING TO FISH WIRE AND TOOLS OUT OF TUBING.
12-17-79 FINISH RUNNING 7-5/8 IN. LATCH ASSEMBLY + 9-5/8 IN. PKR. SEALS. LATCH INTO 7-5/8 IN. D.B. PKR OK + SPACE OUT!CIRCULATE DOWN TUBING 10 BBLS. OF 250 DEG. DIESEL + 200 BBLS OF 180 DEG. HOT PRODUCED WATER. LAND TUBING. REMOVE 6 IN. B.O.P. + INSTALL 10,000 LB FRAC TREE. PRE
SU
10,000 LB FRAC TREE. PRESSURE TEST BACKSIDE 9-5/8 IN. CASING ABOVE 9-5/8 IN. PKR AT 7946' TO 1000 LBS OK. PRESSURE TEST D.B. PKR AT 10,396' TO 6500 LBS. OK. RIG UP DELSCO WIRE LINE SERVICES. ENGAGE FSG BAKER PLUG AT 10,410' P.O.O.H. TO 6100'. OPERATORS GLOVE WENT THROUGH SHEAVE COUNTER BREAKING WIRE LINE

LOSSING 4500' OF .092 WIRE LINE, FISHING TOOLS + PLUG. ATTEMPT TO FISH LOST WIRE. OIL + PARAFFIN ALREADY TO SURFACE. UNABLE TO GET IN HOLE WITH FISHING TOOLS. S.D. 8 P.M.

WELL 1-1184
RIG 17

12/19/79

AFE NO. #583257 AUTH. AMT. $95,000
DAILY COST $14,335 CUM. COST $57,468

12-19-79 - CIRCULATING 180 DEGREE PRODUCED WATER DOWN 9 5/8 IN. CSG. AND OUT TBG. PREPARE TO RUN MAGNET ON SLICK LINE TO RECOVER PIECE OF SKIRT OF FISHING TOOL (1 IN. CIRCULAR).

12-18-79 - REMOVE 10,000# FRAC. TREE AND INSTALL 6 IN. B.O.P. UNSTING FROM BAKER DB PACKER AT 10,396'. PULL 1 JT. TBG. CIRCULATE DOWN 9 5/8 IN. CSG. AND OUT TBG. RERIG DELSCO. ATTEMPT TO RUN 2 PRONG GRAB FISHING TOOL, COULD NOT GET BELOW 1000'. RAN PARAFFIN CUTTING TOOL AND FINALLY WORK PARAFFIN TOOLS TO 4000' CIRCULATING HOT WATER ALL THE TIME CUTTING PARAFFIN. RERAN 2 PRONG GRAB FISHING TOOL. ENGAGE FISH WIRE AT 4375'. P.O.O.H. RECOVERED ALL LOST WIRE AND FISHING TOOLS. FISHING TOOL SKIRT HAD 1 IN. CIRCULAR PIECE BROKEN OFF. RERAN NEW FISHING TOOL SKIRT. DID NOT RECOVER BAKER FSG PLUG PRONG. S.D. 8 P.M.

WELL NO. 1-1184
RIG 17

12/20/79

AFE 583257 AUTH. AMT. $95,000
DAILY COST $6,937 CUM. COST. $64,405

12-20-79 STATUS 12 HR. S.I. TBG. PRESSURE = 1600 LBS. RIGGING UP B J SERVICE TO ACID TREAT PERF'S 10,783 TO 11,466' (177 PERF'S) W/20,000 GALLONS OF 7-1/2 % HCL.
12-19-79 CIRCULATE DOWN 9 5/8 IN. CSG. + OUT 2 7/8 IN. TBG. W/200 DEG. HOT PRODUCED WATER 100 BBLS. RE-RIG DELSCO RAN 2 1/8 IN. O.D. FLAT BOTTOM MAGNET TO 10,415'. P.O.O.H. W/NO RECOVERY OF 1 IN. PIECE OFF FISHING TOOL SKIRT LOST YESTERDAY. CONTINUE CIRCULATING W/200 DEG. HOT PRODUCED WATER. RAN 2 1/8 IN. O.D. PARAFFIN KNIFE TO 6000 FT. SEVERAL TIMES TO BE SURE TBG. CLEAN. RE-LAND TBG. + LATCH INTO BAKER D.B. PKR AT 10,396 W/20,000 LBS. TENSION. REMOVE 6 IN. B.O.P. + INSTALL 10,000 LB. FRAC TREE. PRESSURE TEST TREE SEALS TO 10,000 LBS. O.K. RIG G UP O.W.P. RAN 2-1/8 IN. O.D. GEARHART OWENS JET CUTTER (SPECIAL LOAD) CUT OFF TBG. AT 10,421 FT. (1 IN. BELOW MILLOUT EXTENSION) DROPPED 7 FT. OF 2-7/8 IN. TBG. SUB + BAKER S NIPPLE W/BAKER FSG BLANKING PLUG TO BOTTOM ON TOP OF BAKER 7-5/8 IN. C.I.B.P. AT 11,509 FT. RIG DOWN O.W.P. START RE-RIGGING B J TO ACIDIZE IN MORNING S.D. 7 P.M.

WELL 1-11B4
RIG 17

12/21/79

AFE NO. 583257
DAILY COST $20,716

AUTH. AMT. $95,000
CUM. COST $85,121

12-21-79 STATUS (1900 PSIG AT SURFACE WILL FLOW TO TREATER).
12-20-79 FINISH RIGING UP B.J. SERVICE. PRESSURE TEST SURFACE TREATING LINES + FRAC TREE TO 9000 LBS. ACIDIZE INTERVAL 10,783 TO 11,466 (177 PERF'S) W/20,000 GALLONS OF 7-1/2 % HCL AS PER PROG. 14 HPS. S.I.T.P. = 1770 LBS. MAX. T.P. = 7200, MIN. T.P. = 4200, AVG. T.P. = 6800. MAX R = 13.2 BBLS PER MIN, MIN. R = 10.0, AVG. R = 11.0. I.S.I. = STRONG VACUUM. 5, 10 + 15 M = VACUUM. USED 180 BALL SEALERS, 2000 LBS BENZOIC ACID FLAKES. FLUSH W/107 BBLS. OF PRODUCED WATER. TOTAL LOAD 476 BBLS 7-1/2 % HCL + FLUSH = 583 BBLS.GOOD BALL + DIVERT ACTION. RIG UP O.W.P. RAN GAMMA RAY TRACER LOG FROM TD OF 11,500 UP TO 10,000'. LOG INDICATES PERF'S AT 11,414, 10,847, 10,795 INDICATED TOOK ACID GOOD, ALSO LOG INDICATED AT 10,660, 10710 ACID WAS LOST, (REPAIRED CASING FAILURE WAS AT 10,667). LEFT WELL SHUT IN OVER NIGHT TO SEE IF PRESSURE WILL COME BACK.

WELL 1-11B4
RIG 17

12/22-26/79

AFE NO. #583257
DAILY COST $5972

AUTH. AMT.
CUM. COST $91,093

12-21-79 - WELL HAD 1900# PSIG ON WELLHEAD OPEN TO BATTERY. STAY R-U. LEFT WELL FLOWING SATURDAY 12-22-79. WELL FLOWED 409 OIL, 325 WATER,. WELL STAY R.U. AND FLOW WELL THROUGH HOLIDAYS AND DECIDE WHAT TO DO WEDNESDAY 12-26-79.

WELL 1-11B4
RIG 17

12/27/79

12-26-79 - PRODUCTION 12-26 79. 24 HOURS 292 OIL, 754 WATER, 1541 INJ. 1900 PROD. GAS. BLEED GISING AND TBG. TO TREATER, PUMPED 850 BARRELS WATER DOWN CSG.CIRC. OUT TBG. GAS AND OIL. PUMPED 50 BBLS. DOWN TBG. REMOVED 10,000# TREE, INSTALLED 10 IN. B.O.P. R.U. FLOOR, WORKED FOR SEVERAL HOURS TO RELEASE OUT OF LOWER 7 5/8 IN. PACKER AT 10,396'. S.O.I.O.H. PULLED 20 STANDS 1240'. S.D.O.N.

12-27-79 - FINISH TRIP OUT WITH TBG. AND SEAL ASSEMBLY. R.I.H. WITH 9 5/8 IN. PACKER PLUCKER. START MILLING ON 9 5/8 IN. DB PACKER.

**DAILY COST $7736
**CUM. COST $98,829

WELL 1-11B4
RIG 17

12/28/79

AFE = 583257
DAILY COST $2,950

AUTH. AMT. $95,000
CUM COST. 101,779

12-28-79 STATUS MILL OUT 9 5/8 IN PACKER

12-27-79 PUMP 200 BBLS. PRODUCED WATER! TO KILL WELL. POOH WITH TBG. & SEAL ASSEMBLY PICK UP 9 5/8 IN. MILL, PACKER PLUCKER & RIH TO 7946' STARTED MILLING ON 9 5/8 IN PACKER POWER SWIVEL . BROKE DOWN . S.D.O.N.

WELL 1-1184
RIG 17

AFE #583257 AUTH AMT. $95,000
DAILY COST $3,951 12/29-31/79 CUM. COST $105,730

12-31-79 STATUS RIH W/6 1/2 IN. O.D. BLADE MILL BREAK UP REMAINING PIECES OF 9 5/8 IN PKR. ON TOP OF LINER. TRY TO GET PIECES WORKED THROUGH 7 IN PKR. @ 10,396

12-30-79 S.D. SUNDAY

12-29-79 NO PRES. ON WELL. POOH W/1000' TBG. MAKE UP 4 1/2IN. X 5 1/8 IN. TAPERED SPEAR TO FISH BOTTOM SECTION OF PKR. RIH TO 10,374 STACKED 2,000# ON BOTTOM SECTION OF PKR. & COULD NOT WORK SPEAR THROUGH LINER TOP. POOH W/SPEAR, NO INDICATION OF HOLD ON FISH. S.I.H. W/200 JTS. TBG. W/6 1/2 IN. O.D. 3 BLADED MILL. S.D.O.N.

12-28-79 PUMPED 200 BBLS PRODUCED WATER TO KILL WELL CONTINUE TO MILL OUT 9 5/8 IN PKR. @ 7,946'. MILL UP PKR. POOH RECOVERED ALL BUT BOTTOM 6 IN. OF 9 5/8 IN. PKR RIH OPEN ENDED 1000' S.D.O.N.

WELL 1-1184
RIG 17 1/1-2/80

AFE NO. #583257 AUTH. AMT. $95,000
DAILY COST $7103 CUM. COST $112,833

1-2-80 - FINISH TRIP IN HOLE WITH 7 5/8 IN. PACKER PLUCKER. MILL OUT AND RETREIVE.

12-31-79 - NO PRESSURE ON WELL. FINISH TRIP IN HOLE WITH BLADED MILL. TAGGED BOTTOM SECTION OF 9 5/8 IN. PACKER ON LINER TOP AT 10,374 SPUDDED ON CAST IRON PIECE. 4 TIMES BROKE UP RIH TO 7 5/8 IN. PACKER AT 10,396. STARTED MILLING ON JUNK ON TOP OF PACKER MADE 1 1/2' CIRC. DOWN CSG. AND OUT TBG. PICKED UP 1 JT., CIRC. HOLE CLEAN WITH 400 BARRELS P.W. RECOVERED APPROX. 200 BARRELS OIL IN RECOVERY TANK. P.O.O.H. WITH BLADED MILL. MAKE UP 7 5/8 I.D. BAKER PACKER PICKER. S.I.H. RAN 60 JTS. S.D.O.N.

1-1-80 - SHUTDOWN. NEW YEARS DAY.

WELL 1-1184
RIG 17
1/3/80

AFE NO. 583257 AUTH AMT.
DAILY COST $4,177 CUM. COST $117,010

1-3-80 R.I.H. WITH REDRESSED LATCH ON PKR. PLUCKER. MILL OUT 7-5/8 IN. PKR.
1-2-80 200 # ON TBG & CSG. BLEED WELL OFF. R.I.H. WITH 7-5/8 IN. PKR. PLUCKER TAGGED UP @ 10,392 COULD NOT WORK PLUCKER THRU INSIDE OF PKR. STARTED DRILLING WITH END OF STINGER CIRC. REVEISE MADE 2' IN APPROX. 2 HRS. QUIT MAKING HOLE WORKED UP AND DOWN SEVERAL TIMES SETTING APPROX. 6000# ON STINGER WORKED DOWN ANOTHER 1-1/2' STARTED MILLING AGAIN WITH GOOD TORIQUE COULD NOT GET PLUCKER TO CATCH PKR. P.O.O.H. WITH 7-5/8 IN. PKR. PLUCKER. SAFETY JT. BROKE ON PLUCKER REDRESSED PLUCKER, MILL SHOE OK. S.I.H. RAN 45 JTS. S.D.O.N.

WELL 1-11B4
RIG 17

AFE NO. 583257 1/4/80 AUTH. AMT. $95,000
DAILY COST $3100 CUM. COST $120,110

1-4-80 R.I.H. WITH 8' WASH PIPE AND BAKER SHOE. MILL OVER PKR. TRY TO WEDGE IN WASH PIPE. P.O.O.H.
1-3-80 200# GAS PRESS. ON WELL. BLEED OFF R.I.H. WITH REDRESSED LATCH ON PKR. PLUCKER, TAGGED PKR. @ 10,396 COULD NOT GET PLUCKER TO LATCH IN. STARTED MILLING ON PKR. MILLED 2', LOST TORQUE IN PIPE AND STARTED PLUGGING OFF. WORKED FOR SEVERAL HRS. COULD NOT MAKE ANY HOLE, PROBALY MILLING ON JUNK INSIDE PKR. WITH STINGER, S.O.O.H. PULLED 9000' S.D.O.N.

WELL 1-11B4
RIG 17 1/5-7/80

AFE NO. 583257 AUTH. AMT. $95,000
DAILY COST $6,059 CUM. COST $128,169

1-4-79 200# GAS PRESS. ON WELL, BLEED OFF, FINISH TRIP OUT WITH 7-5/8 IN. MILL & PLUCKER. BOTTOM 15 IN. PLUCKER BROKE OFF, LEFT IN HOLE. MAKE UP 7-5/8 IN MILL WITH 8 FEET WASH PIPE. R.I.H. TAGGED 7-5/8 IN. PKR. @ 10,393. CIRC. REV. STARTED MILLING. MADE APPROX. 3 FEET STOPPED MAKING HOLE. LOST TORQUE ON MILL. R.D. DRILLING EQUIP. PULLED 20 JTS. S.O.O.N.
.1-5-79 NO PRESS. ON WELL, PUMPED 100 BBLS. P.W. DOWN CSG. 50 BBLS. DOWN TBG. FINISH TRIP OUT WITH 7-5/8 IN. MILL SHOE AND WASH PIPE. MAKE UP NEW 7-5/8 IN. MILL. R.I.H. START MILLING ON 7-5/8 IN. PKR. MILL UP PKR. R.I.H. TO 11,502 DID NOT FEEL PKR. GOING IN HOLE. STACK OUT ON 7 FEET LOOSE PIECE OF 2-7/8 IN. TBG. ON TOP OF C.I.B.P. WITH MILL AND MILLED UP PKR. S.O.O.N. PULLED 3000 FEET/ S.D.O.N.
1-6-79 S.D.

WELL 1-11B4
RIG 17 1/8/80

AFE NO. 583257 AUTH AMT $95,000
DAILY COST $3,916 CUM. COST $132,085

01-08-80 RIH. WITH OVERSHOT TO FISH 7 FOOT PIECE 2-7/8 IN. TUBING.
01-07-80 200# PRESS. ON WELL, BLEED, CONTINUE OUT OF HOLE PULLED 3000'. WELL STARTED FLOWING. S.D. PULLING OPERATION. CIRC. HOLE WITH 400 BBLS. P.W. FINISH TRIP OUT WITH 7-5/8 IN. MILL, DID NOT HAVE PKR. INSIDE MILL. MAKE UP 6-1/2 IN. O.D. OVERSHOT WITH 4-1/2 IN. GRAPPLE RIH. TAGGED MILLED UP PKR. @ 11,502 WORKED OVERSHOT OVER PKR. S.O.O.H. WITH PKR. DRAGGING THROUGH EVERY CSG. COLLAR PULLED 7440 FEET S.D.O.N.

WELL 1-1184
RIG 17

1/9/80

AFE NO. 583257 AUTH. AMT. $95,000
DAILY COST $8,330 CUM. COST. $140,415

01-09-80 STATUS R.I.H. WITH 7-5/8 IN. MILL WITH 30' WASH PIPE. MILL COMPLETELY OVER 7-5/8 IN. PKR.
01-08-80 200# ON WELL BLEED WELL OFF PUMPED 100 BBLS. P.W. DOWN CSG. 50 BBLLS. DOWN TBG. FINISH TRIP OUT WITH OVER SHOT, HAD TOP 11 IN. OF 7-5/8 IN. PKR . IN OVERSHOT. MAKE UP 4-1/4 IN. GRAPPLE IN 6-1/2 IN. O.D. OVERSHOT R.I.H. TAGGED PKR. @ 11,503. WORKED OVERSHOT OVER TOP OF MILLED OVER PKR. S.O.O.H. WITH PKR. DRAGGING, WORKED THROUGH SEVERAL COLLARS. P.O.O.H. DID NOT HAVE REMAINDER OF PKR. IN OVERSHOT. R.I.H. 2000' 2-7/8 IN. TBG. OPEN ENDED. S.D.O.N.

WELL 1-1184
RIG 17

1/10/80

AFE NO. 583257 AUTH AMT. $95,000
DAILY COST $2,950 CUM. COST. $143,365

01-10-80 STATUS CONTINUE TO MILL OVER 7-5/8 IN. PKR.
01-09-80 200# PRESS. ON WELL, BLEED OFF WAITED SEVERAL HRS. FOR 2-7/8 IN. RAN RUBBERS FOR 10 IN. B.O.P. MAKE UP 6-1/2 IN. O.D. X 5 IN. I.D. SHOE ON 31', 5-11/16 O.D. X 5 IN. I.D. WASH PIPE. R.I.H. STARTED DRILLING ON 7-5/8 IN. PKR. @ 11,503 MADE APPROX. 1 F
PULL OUT OF 7-5/8 IN. LINER S.O.O.N. RECOVERED APPROX. 250 BBLS OIL IN RECOVERY TANK.

WELL 1-1184
RIG 17

1/11/80

01-11-80 STATUS R.I.H. WITH 4-1/4 IN. GRAPPLE TO FISH BAKER 6' MILLOUT EXTENSION.
01-10-80 200# GAS PRESS. ON WELL, BLEED OFF. RAN BACK IN HOLE TO 11,503. STARTED MILLING AGAIN ON 7-5/8 IN. PKR. AND JUNK FROM 9-5/8 IN. PKR. CIRC. WELL REV. WITH HOT PRODUCED WATER.

MADE APPROX. 3' LOST TORQUE WITH MILL, P.O.I.H. WITH 6-1/2 IN. OD MILL AND WASH PIPE. RECOVIERED REMAINDER OF 7-5/8 IN. PKR AND SEVERAL SLIPS FROM 9-5/8 IN. PKR., 4-1/2 IN. MILL OUT EXITENSION WAS BROKEN OFF BOTTOM OF PKR. DID NOT RECOVER 6' MILL OUT EXTENSION. MAKE UP 6-1/2 IN. OD OVERSHOT WITH 4-1/4 IN. GRAPPLE. R.I.H. 2000'. S.D.O.N.

AFE NO. 583257 AUTH AMT. $95,000
DAILY COST $4,009 CUM. COST $147,374

WELL 1-11B4
RIG 17

1/12-14/80

AFE NO.
DAILY COST $7515

AUTH. AMT.
CUM. COST $154,889

01-11-80 200# GAS PRESS. ON WELL, BLEED WELL DOWN. R.I.H. WITH 6-1/2 IN. O.D. OVERSHOT WITH 4-1/4 IN. GRABBLE TO FISH 6' BAKER MILLOUT EXT. TAGIED @ 11,506' TRIED TO WORK OVERSHOT OVER FISH, P/OOH. DID NOT FISH MILLOUT EXT. /MAKE UP NEW 6-1/2 IN. O..D. X 5 IN. I.D. SHO E ON! 31' 5-11/16 IN. O.D. X 5 IN. I.D. WASH PIPE. R.I.H. TAGGED MILLOUT EXT. @ 11,506 PULLED UP 1 JT. S.D.O.N.I.
01-12-80 200 # GAS PRESS ON WELL, BLEED WELL DOWN. R.I.H. 1 JT. TAGGED MILLOUT EXT. STAITED DRILLING WHILE CIRCULATING REVERSE.WASHED OVER MILLOUT EXT. WITHOUT !ERY LITTLE TROUBLE MADE 7-1/2 FEET. STARTED MILLING MAKING VERY LITTLE HOLE. MADE APPROX 1-1/2 FEET TOTAL FOR DAY APPROX. 9 FEET. SET 10,000# ON JUNK SEVERAL TIMES S.O.O.H. FOUND CROIN SHEEVE ON RIG BAD LAYED DOWN 3 STANDS. R.D.RIG.
-1-13-80 SUNDAY REPAIR RIG NO CHARGES FOR SUNDAY.

WELL 1-11B4
RIG 17

1/15/80

AFE NO. #583257
DAILY COST $4203

AUTH. AMT. $95,000
CUM. COST $159,092

1-14-79 - R.U. RIG, NO CHARGE, P.O.O.H. WITH WASH PIPE AND SHOE. HAD MILLOUT EXTENSION STUCK IN WASH PIPE. MILLOUT EXTENSION FULL OF PARTS OF BOTH PACKERS, ALSO RECOVERED SAFETY JT. OFF PACKER PLUCKER. MAKE UP NEW 6 1/2 IN. O.D. X 5 IN. I.D. SHOE ON! 6 IN. O.D. WASH PIPE. RIH. R.U. POWER SWIVEL AND DRILLING HEAD. S.O.O.N.

WELL 1--11B4
RIG 17

1/17/80

AFE NO.
DAILY COST $3,202

AUTH. AMT.
CUM. COST $165,244

01-16-80 200# GAS PRESS. ON WELL BLEED OFF. FIINISH TRIP OUT WITH WASH PIPE AND SHOE. SHOE COMPLETELY WORE OUT. ATTEMPT TO MAKE UP NEW 6-1/2 IN. O.D. X 5 IN. I.D. SHOE ON WASH PIPE WOULD NOT MAKE UP. THIEADS BAD ON SHOE. HAD TO SEND BACK TO VERNAL TO REDRESS THREAIDS. MAKE UP REDRESSED SHOE FROM VERNAL. R.I.H. WITH WASH PIPE A!ND SHOE, TAGGED @ 11,510'. STARTED CIRC. REV., STARTED DRILLING ON TBG. SUB AND JUNK. MADE APPROX. 1 FT. IN 2 HRS. PULLED 1 JT. S.D.O.N.

WELL 1-11B4
RIG 17

1/18/80

AFE NO. #583257
DAILY COST $5161

AUTH. AMT. $95,000
CUM. COST $170,405

1-17-80 - 200# GAS PRESSURE ON WELL. BLEED OFF. RIH 1 JT. TAGGED TBG. AT 11,512'. STARTED DRILLING WHILE CIRC. REV., MADE 2' IN APPROX. 4 HOURS, MILLED FOR 2 MORE HOURS, SPUDDED ON JUNK SEVERAL TIMES. POOH WITH WASH PIPE AND SHOE. HAD SEVERAL PIECES OF CUT UP TBG. AND BAKER PLUG HOLDER AND PLUG IN WASH PIPE. MAKE UP NEW 6 1/2 IN. O.D. X 5 IN. I.D. SHOE ON WASH PIPE. S.I.H. RAN 11,000'. S.D.O.N.

BROTHERSON 1-11B4
FOREMAN: KREG: HILL
RIG # 17
TYPE: REMEDIAL OIL AND GAS
OBJECTIVE: CLEAN OUT, PERFORATE AND TREAT UPPER WASATCH.

1/19-21/80

WO# 583257
AUTH. AMT. $95,000
DAILY COST: $3807
CUM. COST $174,212

DATE: 1-18-80
PRESENT STATUS: 200# GAS PRESS. ON WELL. BLEED WELL OFF. FINISH TRIP IN HOLE WITH 6 1/2 IN. O.D. X 5 IN. I.D. SHOE AND WASH PIPE. STARTED MILLING ON C.I.B.P. AT 11,514. MILLED FOR 3 HOURS. MILLED UP PLUG. RAN TO 12,600'. ENCOUNTERED SCALE IN CASING WHILE GOING IN HOLE. COULD NOT GET PAST 12,600. R.U/ SWIVEL. DRILLED FOR 1 HR. DID NOT MAKE ANY HOLE. S.O.O.H. PULLED 120 STANDS. 7440' S.D.O.N. RECOVERED 250 BARRELS OF OIL FROM OIL SAVER TANK.

BROTHERSON 1-11B4
FOREMAN: J.K.HILL
RIG: 17
TYPE: REMEDIAL OIL AID GAS

1/22-23/80

!0# 583257
AUTH. AMT. $95,000
DAILY COST $3091
CUM. COST: $177,303

DATE: 1-19-80
PRESENT STATUS: 200# GAS PRESSURE ON WELL. BLEED WELL OFF TO PIT. FINISH TRIP OUT WITH 6 1/2 IN. O.D. X 5 IN. I.D. MILL. MAKE UP 6 1/2 IN. O.D. 5 BLADED MILL. RIH TO 12,600'. STARTED MILLING ON CIBP AND SCALE. MADE APPROX. 10' IN 3 HOURS. MILL STARTED PLUGGING OFF. PICKED UP 1 JT. CIRC. BOTTOMS UP. S.D.O.N.

BROTHERSON 1-11B4
FOREMAN=J. K. HILL
RIG #17
TYPE: REMEDIAL OIL & GAS
OBJECTIVE: CLEAN OUT, PERF. & TREAT UPPER WASATCH

1/22-23/80

WO# 583257
AUTH. AMT. $95,000
DAILY COST: $3,608
CUM. COST: $180,911

DATE: 1-21-80
PRESENT STATUS: BLEED GAS OFF WELL. PUMPED 60 BBLS. P.W. DOWN TBG., TBG. PLUGGED. STARTED CIRC. REV. TO CLEAR TBG.; CIRC. 600 BBLS. P.W. W/OIL & GAS RETURNS. PUMPED 60 BBLS. DOWN TBG. STILL PLUGGED. P.O.O.H. W/TBG. & F BLADED 6-1/2 IN. O.D. MILL. MILL & SUB COMPLETELY PLUGGED W/SMALL PIECES OF IRON. MAKE UP 6-1/2 IN. O.D. MILL 4/2 IN. I.D. MILL BUILT W/OPENING OFF CENTER. RAN 160 JTS 4,960'. S.D.O.N.

BROTHERSON 1-11B4
FOREMAN: J.K. HILL
RIG: 17
TYPE: REMEDIAL OIL AND GAS
OBJECTIVE: CLEAN OUT, PERF. AND TREAT UPPER WASATCH

1/22-23/80

WO# 583257
AUTH. AMT. $95,000
DAILY COST: $4583
CUM. COST: $185,494

DATE: 1-22-80
STATUS: BLEED GAS OFF WELL. CONTINUE IN HOLE WITH 6 1/2 IN. O.D. MILL WITH 2 IN. I.D. ON 1 JT. WASH PIPE. TAGGED CIBP AT 12,600'. PICKED UP 1 JT., STARTED CIRC., REV. PUMPED 500 BARRELS TO GET CIRC. STARTED MILLING. MILLED FOR APPROX. 2 HOURS. DID NOT MAKE ANY HOLE. PUMPED 60 BARRELS DOWN TBG. TO CLEAR. PUMPED 10 BARRELS 15% HCL ACID. SPOTTED WITH 73 BARRELS P.W. LET SET FOR 1 HOUR. STARTED MILLING AGAIN. MADE 5'. PICKED UP 1 JT. PUMPED 60 BARRELS DOWN TBG. TO CLEAR. PUMPED 15 BARRELS 15% HCL ACID SPOTTED WITH 73 BARRELS P.W. PULLED UP 4 JTS. PUMPED 20 BARRELS DOWN CASING. S.D.O.N.

Brotherson 1-11B4
Foreman: J. K. Hill
Rig: Western #17
Type: Remedial Oil and Gas
Objective: Clean out, perf. and treat Upper Wasatch.

1/26-28/80

WO # 583257
Auth. Amt.: $95,000
Daily Cost: $3939
Cum Cost: $194,322

Date: 1-24-80
Bleed gas press. off well. Continue in hole w/6½" O.D. X 5¼" I.D. mill. tagged C.I.B.P. @ 12,605. Pumped 1000 bbls p.w. before getting returns. Started milling on C.I.B.P. and scale. Milled for 10 min. fell through. Ran 48 jts hitting seal deposits throughout interval. Ran to 14151. Could not go any further. R.U. power swivel. Started milling again. Milled for 3 hrs. made approx. 3' to 14154. Spotted 15 bbls 15% HCL acid on bottom. Pulled 10 jts S.D.O.N.

Cum. Total Cost: $194,322

BROTHERSON 1-11B4
FOREMAN: J.K.HILL
RIG: 17
TYPE: REMEDIAL OIL AND GAS
OBJECTIVE: CLEAN OUT, PERF. AND TREAT UPPER WASATCH.

1/26-28/80

WO# 583257
AUTH. AMT. $95,000
DAILY COST: $13,699
CUM. COST $208,021

DATE: 1-25-80
BLEED GAS PRESS. OFF WELL, STARTED PUMPING DOWN CASING TO CLEAN UP WELL. CIRC. FOR 2 HOURS. STARTED PUMPING DOWN TBG. TO CLEAR. TBG. PLUGGED. COULD NOT SPOT ACID IN LINER. P.O.O.H. WITH PLUGGED TBG. REMAINS OF C.I.B.P. STUCK IN MILL. RIH 260 JTS. WITH 2 7/8 IN. TBG. WITH 2 7/8 IN. COLLAR ON BOTTOM. S.D.O.N.

DATE: 1-26-80
STATUS: BLEED GAS OFF WELL. FINISH TRIP IN WITH 2 7/8 IN. TBG. RAN TO 14,274. SPOTTED 100 BARRELS 15% HCL ACID, DISPLACED OUT WITH 68 BARRELS P.W. PULLED 2000 2 7/8 IN. TBG. PUMPED 50 BARRELS 15% HCL ACID. DISPLACED OUT OF TBG. WITH 50 BARRELS P.W. PULLED 2000' TBG. BULLHEADED 150 BARRELS P.W. DOWN TBG. FINISH TRIP OUT WITH TBG. MADE UP 9 5/8 IN. GUIBERSON UNI-PACKER VI. COULD NOT GET PACKER STARTED THROUGH 9 5/8 IN. CASING. RIH 2000'. 2 7/8 IN. TBG. OPENENDED. S.D.O.N.

DATE: 1-27-80
STATUS: SHUTDOWN SUNDAY.

BROTHERSON 1-11B4 1/29/80 WO# 583257
FOREMAN: M.G.GRAY AUTH. AMT.: $95,000
RIG: 17 DAILY COST: $9493
TYPE: REMEDIAL OIL AND GAS CUM. COST: $217,514
OBJECTIVE: CLEAN OUT, PERF. AND TREAT UPPER WASATCH.

DATE: 1-28-80
PRESENT STATUS: CIRCULATING AT 2000' TBG. TO KILL WELL.

DATE: 1-29-80
PRESENT STATUS: 12 HR. S.I.T.P. = 300 LBS. RELEASE RIG. RIGGING DOWN TO MOVE TO FIELDSTED 1-29A4.

DATE: 1-28-80

FINISH CIRCULATING TO KILL WELL AT 2000' WITH 400 BARRELS PRODUCED WATER. P.O.O.H. PICK UP GUIBERSON UNI-PACKER VI AND RAN IN HOLE PLUS GAS MANDRELS. SET PAIKER AT 10,300' WITH 14,000# TENSION (343 JTS. TBG., 10 GAS MANDRELS) MANDRELS SPACED AT FOLLOWING DEPTHS: ORIFICE 10,244 9,731 9,218 8,705 8,192 7,649 7,136 6,384 5,095 3,096. REMOVE 10 IN. B.O.P. AND INSTALL REGULAR 5000 LB. TREE. S.D. 10 P.M.

BROTHERSON 1-11B4 1/30/80 WO# 583257
FOREMAN: M.G.GRAY AUTH. AMT. $95,000
RIG: 17 DAILY COST $1069
TYPE: REMEDIAL OIL AND GAS CUM. COST: $218,583
OBJECTIVE: CLEAN OUT. PERF. AND TREAT UPPER WASATCH.

DATE: 1-30-80
PRESENT STATUS: FINISHING RIGGING DOWN AND MOVING TO FIELDSTED 1-29A4. SNOW STORM!

**

Form OGC-1b

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Shell Oil Company

3. ADDRESS OF OPERATOR: P.O. Box 831, Houston, TX 77001 ATTN: L.L. Litzen 6468 WCK

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1520' FNL & 1320' FEL, Sec. 11

5. LEASE DESIGNATION AND SERIAL NO.: Patented

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Brotherson

9. WELL NO.: 1-11B4

10. FIELD AND POOL, OR WILDCAT: Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: CNE/4, Sec. 11, T2S, R4W

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6198' KB

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[X]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]				
(Other)				(Other)			

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

See attachment.

Verbal approval: Ron Firth, Eng.
State of Utah — Division of
Oil, Gas, & Mining
11-1-82

18. I hereby certify that the foregoing is true and correct

SIGNED W. F. N. KELLDORF TITLE Div. Prod. Eng. DATE 10/31/82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

REMEDIAL PROGNOSIS
BROTHERSON 1-11B4
SECTION 11, T2S, R4W
ALTAMONT FIELD, UTAH

Pertinent Data: Shell's Share: 100%

Elevation (KB):	6198'
Elevation (GL):	6179'
TD:	17,766'
PBTD:	15,218' (CIBP at 14,680' - junk to 14,276')
Casing:	13-3/8", 68#, K-55 & S-80 to 6502' 9-5/8", 47#, S-95 & P-110 to 11,599'
Liner:	7-5/8"; 33.7#; N-80; 10,340' (tie-back sleeve) - 11,305' 7-5/8"; 39#, S-95; 11,305'-15,453'
Tubing:	2-7/8", 6.5#, N-80, EUE to 10,300'
Packer:	9-5/8" Guiberson Uni-packer VI at 10,300'
Perforations:	10,783'-14,756' (1186 holes - 80 below junk at 14,276')
Artificial Lift:	Gas lift with mandrels at 3096'; 5095'; 6384'; 7136'; 7649'; 8192'; 8705'; 9218'; 9731'; and 10,244'
Objective:	CO and stimulate the Wasatch.

Current Status: 77 BOPD + 413 BWPD + 211 MCFPD gas with 520 MCFPD injection gas.

Procedure:

1. MIRU. Load hole with clean produced water containing 5 gallons/100 bbl. Tretolite Xcide 102 Biocide. Remove tree. Install and test BOPE. See Attachment I for Engineering recommendation for BOPE type.

2. Pull tubing and 9-5/8" fullbore packer and lay down GL equipment.

3. CO 7-5/8" liner to 14,276'±. Take two sampled of scale from interval 10,783'-13,815' only if samples can be retrieved while reverse circulating and send to I. Yung, WCK 6406.

4. RIH with tubing and 7-5/8" fullbore packer and set packer at 10,700'±.

5. Remove BOPE. Install and test 10,000 psi WP tree.

6. Flush with ten gallons Tretolite F-46 (preflush) followed by 20 bbl. of produced water.

7. Acid treat perfs 10,783'-13,815' (1106 old) with 35,000 gallons of 15% HCl as follows:

   a. Pump 1,000 gallons 15 % HCl.

b. Pump ~~4,000~~ 34,000 gallons acid, dropping one ball sealer, NBS-431 or equivalent (7/8" RCN with 1.3 S.G.) every 35 gallons.

~~c. Pump 1,000 gallons acid containing 1000# benzoic acid flakes, HDA-143 or equivalent.~~

d. ~~Repeat step (b) six more times and step (c) five more times for a total of seven stages acid and six of diverting material~~ (total 35,000 gallons acid and ~~800~~ 971 ball sealers).

e. Flush with 70 bbls. of clean produced water.

NOTES:

(1) All acid and flush to contain 5 lb. NFR-44/1,000 gallons HCl or equivalent for ±60% friction reduction.

(2) All acid to contain three gallons NAI-167/1,000 gallons HCl or equivalent for four hours exposure at 210°F and the necessary surfactant NNE-257N or equivalent (tested for compatibility with formation fluids) and two gallons Tretolite SP-237/1,000 gallons HCl or equivalent.

(3) Maintain 2500 psi surface casing pressure during treatment if possible.

(4) Pumping rates: pump at maximum possible without exceeding 6500 psi differential pressure between tubing and annulus.

(5) Increase amount of diverting material if necessary to obtain a gradual increase in treating pressure and/or decrease in rate.

(6) Record ISIP and shut-in pressure decline for at least 20 minutes.

8. After waiting ±one hour past completion of acid treatment, treat well with scale inhibitor squeeze as follows:

a. Thoroughly mix eight drums of Tretolite SP-237 with 160 bbl. of produced water.

b. Pump scale inhibitor solution followed by 20 bbl. produced water.

c. Overflush with 50 bbl. of CaCl water (mixed at 10 lb. CaCl/1 bbl. produced water).

d. Displace with 200 bbl. produced water containing 5 gallons/100 bbl. Tretolite Xcide 102 Biocide.

9. a. If well is dead after inhibitor treatment, continue with step 8.

   b. If well tries to flow, leave it shut-in for 24 hours before trying to flow back and continue with step 8.

10. Remove tree. Install and test BOPE.

11. POOH with tubing and 7-5/8" fullbore packer.

12. RIH with tubing, GL equipment, and 9-5/8" packer. Set packer at 10,300'±. Install GL equipment as shown on Attachment II and release rig.

13. Remove BOPE. Install and test 10,000 psi WP tree.

14. Do not return well to production until at least 24 hours after completing inhibitor squeeze.

15. Report well tests on morning report until production stabilizes.

Requested by: L. L. Litzen Approved: C. R. Reiter

Date: 11-1-82

LLL:RR
10/26/82

ATTACHMENT I

SHELL OIL COMPANY

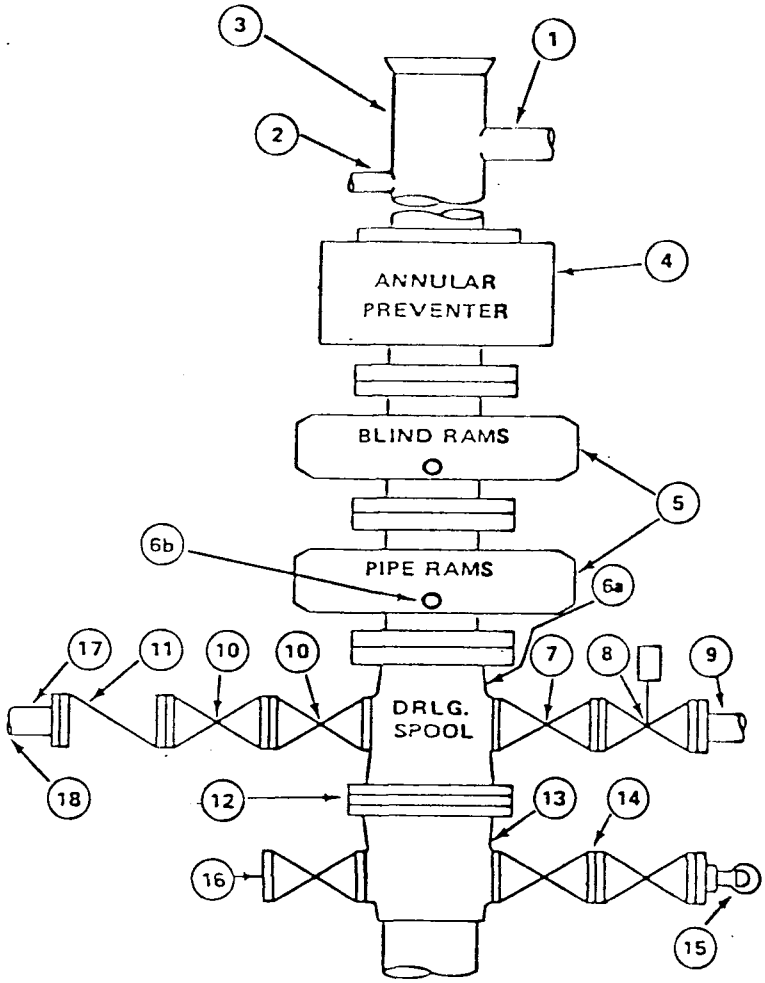
DRAWING AND CHECK LIST 104A
SHELL CLASS 5MR, 5MA
5,000 psi Working Pressure

SHELL MINIMUM BOP STACK REQUIREMENTS			
No.	Item	Min. I.D.	Min. Nominal
1	Flowline		
2	Fill up Line		2"
3	Drilling Nipple		
4	Annular Preventer	11"	
5	Two single or one dual hydrualically operated rams	11"	
6a	Drilling spool with 2" and 3" min. outlets		
	—or—		
6b	2" and 3" outlets in ram. Run kill and choke lines from these outlets.		
7	Valve Gate ☒ Plug ☒	3 1/8"	
8	Gate Valve Power Operated	3-1/8"	
9	Line to choke manifold		3"
10	Valves Gate ☒ Plug ☒	2-1/16"	
11	Check Valve	2-1/16"	
12	Wear flange or bushing		
13	Casing Spool		
14	Valves Gate ☒ Plug ☒	1-13/16"	
15	Compound Pressure Gauge		
16	Flanged control plug or valve	1-13/16"	
17	Kill line to rig mud pump manifold		2"

NOTE: Additional specifications for Air/Gas Service are given in Shell Well Control Manual, Appendix 5.21.

OPTIONAL			
18	Roadside connection to kill line		2"

CONFIGURATION A



ATTACHMENT II
Gas Lift Valve Design

Well No. 1-11B4
5-10-79 (WES)

Valve Depth	Test Rack Set Press. @ 60°F.	Surface Operating Pressure	Port Size	Valve Type
3095	1371	1375	3/16"	Camco BK or Equivalent
5100	1373	1347		
6380	1374	1316		
7130	1370	1300		
7740	1363	1287		
8350	1357	1273		
8960	1351	1259		
9570	1346	1244		
10,180	1341	1229		
10,790	1336	1215		
11,400	—	—		Camco DKO-2 (Orifice w/ Check) or Equivalent

Revised Due to Shallow or Packer Setting

7130	1373	1300	3/16"	Camco BK or equivalent
7650	1367	1289		
8170	1362	1277		
8690	1356	1265		
9210	1352	1253		
9730	1347	1240		
10,250	—	—		Camco DKO-2 (Orifice w/ Check) or equivalent

Design Data

PV = 1375
GK = 3.230 * 10^{-5}

PT = 200
PTKo = 1.00

Datum = 12,200

Temp. Grad. for 1200 BDG

Surf.	86 °F
5000	155
8000	189
11,000	211

MP (12,130) 215
(of Productive Interval)

13 3/8", 68# K-55 & S-80 to 6502'

9 5/8", 47#, S-95 & P-110 to 11,599'

TGR3
9300'

9 5/8" fullbore pkr.
@ 10,300'

M1
10,565'

TT
10,765'

PERFORATED INTERVAL
10,783'-14,756' (1186 holes)

BT
12,150'

7 5/8", 33.7#, N-80
10,340' (tie-back sleeve) - 11,305'

M5
13,060'

7 5/8", 39#, S-95
11,305'-15,453'

TNT
13,990'

Junk to ≃14,276' (58 perfs below)

CIBP @ 14,680' (22 perfs below)

PBTD 15,218' (Top of cement plug)

TD 17,766'

Form OGC-1b

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Shell Oil Company ATTN: B. T. Ellison 6486 WCK.

3. ADDRESS OF OPERATOR: P. O. Box 831 Houston, Tx. 77001

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1520' FNL & 1320' FEL Sec. 11

5. LEASE DESIGNATION AND SERIAL NO.: Patented

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Brotherson

9. WELL NO.: 1-11B4

10. FIELD AND POOL, OR WILDCAT: Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 11 T2S R4W C NE/4

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): KB 6198'

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[X]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			
(Other)			[ ]	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

COMPLETED OPERATIONS

Acid treated the Wasatch (10,783'-13,815') with 35,000 gals. 15% HCL. Treated well with scale ~~inhibitor sqz.~~ with 440 gals. of Trelolite SP-237 mixed with 160 bbls. produced water. Returned well to production. Latest test 2/4/83 Avg./Prod. 171.3 BOPD, 359.4 BWPD, and 426.8 MCF gas.

RECEIVED
FEB 16 1983
DIVISION OF
OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct

SIGNED B. T. Ellison TITLE Div. Prod. Engr. DATE February 10, 1983

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

ALTAMONT OPERATIONS
DAILY COMPLETIONS AND REMEDIALS REPORT
WELL HISTORY FOR WELL 414
ISSUED 12/22/82

WELL:	BROTHERSON 1-11B4
LABEL:	FIRST REPORT
AFE:	580047
FOREMAN:	BARRY THOMPSON
RIG:	WDW 19
OBJECTIVE:	CO STIM AND INHIB SQZ
AUTH. AMNT:	103000
DAILY COST:	1913
CUM COST:	1913
DATE:	11-01-82
ACTIVITY:	AFE 580047 PROVIDES FUNDS 103000 TO CLEAN
02	OUT STIMULATE AND PERFORM A SCALE INHIBITOR
03	SQUEEZE 11-01-82 ACTIVITY MIRU WAIT ON WELL TO
04	BLED GAS OFF OF CSG TO TREATOR SDON
LABEL:	-----
DAILY COST:	2884
CUM COST:	4797
DATE:	11-02-82
ACTIVITY:	ACTIVITY FLOWED WELL TO TREATOR FOR 2 HRS
02	PUMPED 100 BBLS DOWN TBG REMOVED WELLHEAD AND
03	DONUT STRIP 7 1/16 IN X11 IN SPOOL OFF AND PUT ON
04	11X10 IN SPOOL AND 10 IN BOP ON RIG UP FLOOR
05	TRIED TO RELEASE PKR WOULD NOT RELEASE RIG
06	UP POWER SWIVEL STILL WOULD NOT RELEASE CALLED
07	KELLY MCELVAIN OF GUIBERSON ON LOCATION AT
08	5:30 PM STILL COULD NOT RELEASE PKR SDON
LABEL:	-----
DAILY COST:	2463
CUM COST:	7260
DATE:	11-03-82
ACTIVITY:	ACTIVITY BLED PSI OFF WELL PUMP 100 BBLS WTR
02	DOWN CSG TRY TO RELEASE PKR PKR STILL WOULD
03	NOT RELEASE RD POWER SWIVEL RU DIA LOG TO RUN FREE
04	POINT TOOL TAG AT 4200 FT HIT WAX POOH AND RIG
05	DOWN DIA LOG RIG UP WAX CUTTER AND HOT OIL TRUCK
06	TO CUT WAX IN TBG CUT WAX TO 7100 FT RD WAX CUTTER
07	RU DIA LOG TO FREE POINT TBG TBG FREE TO TOP OF
08	PKR POOH W/DIA LOG SDON

ALTAMONT OPERATIONS
DAILY COMPLETIONS AND REMEDIALS REPORT
WELL HISTORY FOR WELL 414
ISSUED 12/22/82

LABEL:	-----
DAILY COST:	8096
CUM COST:	15359
DATE:	11-04 THUR 11-07-82
ACTIVITY:	ACTIVITY RU HOT OIL TRUCK PUMPED 100 BBLS WTR
02	DOWN TBG RU DIA LOG AND MAKE 2 1/4 DUMMY
03	RUN HAD SOME TROUBLE PULLING OUT OF HOLE RIH
04	W/ CHEMICAL CUTTER CUTTER DID NOT WORK POOH
05	AND CHANGE CUTTERS RIH CUT TBG OFF 20 FT ABOVE
06	PKR POOH AND RIG DOWN DIA LOG PICK UP ON TBG
07	TBG FREE POOH TALLY OUT PULLED 90 STDS SDON
08	11-05-82 DAILY COST 9997 CUM COST 25355 ACTIVITY
09	BLED PSI OFF WELL FINISH POOH LAY DOWN CUT OFF
10	JOINT RIH W/o 1/2 IN OVER SHOT W/2 7/8 IN
11	GRAPPLE BUMPER SUB HYD JARS SIX 4 3/4 IN DRILL
12	COLLARS ACCELERATOR AND 337 JTS TBG TAG FISH
13	LATCH ON SET JARS OFF TWICE PKR CAME LOOSE
14	POOH W/110 STDS SDON 11-06-82 ACTIVITY BLED PSI
15	OFF WELL FINISH POOH LAY DOWN TOOLS AND PKR PICK UP
16	6 1/2 IN MILL AND MIRACLE TOOL RIH W/343 JTS TBG MOVE
17	OVER 130 JTS OUT OF PIPE BASKET AND TALLY SDON 11-07-82
18	ACTIVITY SUNDAY DAILY AVG FOR OCT OIL 73 WTR 401

LABEL:	-----
DAILY COST:	4699
CUM COST:	30054
DATE:	11-08 THUR 11-09-82
ACTIVITY:	ACTIVITY BLED PSI OFF WELL START PICKING
02	UP TBG TAGGED SCALE AT 11340 FT RU POWER
03	SWIVEL AND START DRILLING DRILLED VERY HARD
04	MADE 260 FT RD POWER SWIVEL POOH W/55 STANDS
05	SDON

LABEL:	-----
DAILY COST:	3617
CUM COST:	33671
DATE:	11-09 THUR 11-11-82
ACTIVITY:	ACTIVITY BLED PSI OFF WELL RIH W/5 STDS TBG PICK
02	UP POWER SWVIEL AND START DRILLING AT 11600 FT
03	CLEANED OUT TO 12580 FT RD POWER SWIVEL AND
04	POOH W/10 STDS TBG SDON 11-10-82 ACTIVITY DAILY
05	COST 3035 CUM COST 37306 BLED PSI OFF WELL RIH W/10 STDS

ALTAMONT OPERATIONS
DAILY COMPLETIONS AND REMEDIALS REPORT
WELL HISTORY FOR WELL 414
ISSUED 12/22/82

06 RU POWER SWIVEL START DRILLING AT 12580 FT
07 CLEANED OUT TO 14321 FT RD POWER SWIVEL LAY
08 DOWN 116 JTS POOH W/110 STDS TBG SDON 11-11-82
09 ACTIVITY DAILY COST 1963 CUM COST 39269 BLED PSI OFF WELL
10 FINISH POOH W/MILL RIH W/NT STATES 32-A PKR AND
11 358 JTS TBG SET PKR AT 10703 FT W/18000 LBS
12 TENSION FILL AND PRESS CSG TO 2000 LBS BLED
13 PSI OFF CSG TAKE BOP OFF SET LANDING FLANGE ON
14 PUT TBG DONUT ON PUT WELLHEAD ON READY TO ACIDIZE
15 SDON

LABEL: -----
DAILY COST: 5363
CUM COST: 44632
DATE: 11-12 THUR 11-15-82
ACTIVITY: ACTIVITY MIRU NOWSCO TO ACIDIZE AND PERFORM SCALE
02 INHIBITOR SQUEEZE AS PER PROG A CK ON PROD WTR IN
03 THE FRAC MASTER TANKS WAS MADE BY ED MOTT OF
04 NOWSCO THE WTR IN 2 OF THE TANKS WAS FOUND
05 TO BE TOO CONTAMINATED CRUDE OIL AND OIL WTR
06 INTERFACE TO BE USED THE TANKS WERE DRAINED AND CLEANED
07 REFILLED W/PROD WTR DUE TO THE LENGHT OF TIME
08 IT TOOK TO DRAIN CLEAN AND REFILL THE TANKS IT WAS
09 DECEDED NOT TO TRY AND PERFORM ACID JOB UNTIL
10 11-13-82 ALL CHARGES FOR TODAY ARE BEING DISCUSSED
11 W/DUANE HALL TRUCKING SDON

LABEL: -----
DAILY COST: 47659
CUM COST: 92291
DATE: 11/13 THRU 11/15/82
ACTIVITY: 11/13/82 ACTIVITY: START ACID JOB AND INHIB. SQZ.
02 AS PER PROG. TREATED PERFS FROM 10783 TO 13815
03 1106 MAX PRESS 8910 MAX RATE 15.4
04 AVG PRESS 7915 AVG RATE 14.6
05 ISIP 5 THRU 20 MIN. ALL 0 BALLS 971 ACID 810 BBLS
06 FLUSH 70 BBLS TOTAL 880 BBLS
07 AFTER 1 HR SHUT IN PERIOD CHEM INHIB. SQZ WAS STARTED.
08 PUMPED 160 BBLS WTR MIXED WITH TRETOLITE SP 237
09 FOLLOWED BY OVERFLUSH OF 50 BBLS OF CACL WTR DISPLACED
10 BY 200 BBLS PRODUCED WTR RIG DOWN NOWSCO. SDON
11 11/15/82 DAILY AMT. 1963 CUM AMT. 94254 ACTIVITY

ALTAMONT OPERATIONS
DAILY COMPLETIONS AND REMEDIALS REPORT
WELL HISTORY FOR WELL 414
ISSUED 12/22/82

12 THAWED WELLHEAD WITH LOAD OF HOT WTR TBG HAD
13 900 LBS HOOKED UP FLOWLINES AND FLOWED WELL TO
14 TREATOR. AT 4 PM TBG HAD 250 LBS ON IT.
15 FLOWED WELL TO TREATOR OVERNIGHT. SDON

LABEL: ----
DAILY COST: 2043
CUM COST: 96297
DATE: 11-16 AND 11-17-82
ACTIVITY: 11-16-82 ACTIVITY: WELL LEFT FLOWING TO TREATOR OVER
02 NIGHT. 125 LBS. ON TBG. IN A.M. STILL FLOWING.
03 PUMPED 80 BBLS. WTR. DOWN TBG. TO KILL WELL. REMOVE
04 W.H. AND DONUT. STRIP 11 X 7 1/16
05 SPOOL. SET 11 INCH X 10 INCH SPOOL AND 10 INCH
06 BOP ON. RELEASE PKR. AND POOH W/TBG. RIH W/ MT.
07 STATES 32 A 9 5/8 INCH 47 LBS. PKR. AND PLUS 45 SEAT
08 NIPPLE AND 10 CAMCO MANDRELS AND
09 342 JTS. TBG. LEFT 40 STANDS OUT OF HOLE. S.D.O..N.
10 11-17-82 DAILY COST 1963 CUM COST 98260 ACTIVITY:
11 FINISH RIH W/TBG. 40 STANDS CAMCOS AND
12 PKR. SET PKR. AT 10305 FT. W/18000 LBS. TENSION.
13 R.D. RIG. PREPARE TO MOVE TO 1-16B4. THIS WILL BE
14 THE LAST RIG REPORT ON THIS LOCATION BUT THERE WILL
15 BE A WEEK S WORTH OF TEST DATA ENTERED BEFORE WE
16 FINAL REPORT IT.

LABEL: FINAL REPORT
DAILY COST: FINAL REPORT
CUM COST: 98260
DATE: 11-27-82
ACTIVITY: RIG MOVED FROM THIS LOCATION ON 11-17-82 THE
02 FOLLOWING TEST ARE FOR 24 HRS UNLES OTHER WISE
03 STATED 11-20-82 OIL 429 WTR 689 GAS 843 INJ 430
04 CHOKE 30/9 11-21-82 OIL 418 WTR 611 GAS 820 INJ
05 482 CHOKE 30/9 11-22-82 OIL 419 WTR 481 GAS 820 INJ 482
06 CHOKE 30/9 11-23-82 OIL 536 WTR 548 GAS 880 INJ 498
07 CHOKE 30/9 11-24-82 OIL 444 WTR 485 GAS 740 INJ 342
08 CHOKE 30/9 11-25-82 OIL 341 WTR 358 GAS 740 INJ 396
09 CHOKE 30/9 11-26-82 OIL 498 WTR 551 GAS 1230 INJ 706
10 CHOKE 30/10

Shell Oil Company

P.O. Box 831
Houston, Texas 77001

December 30, 1983

Mr. Norm Stout
State of Utah
Natural Resources
Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, UT 84114

Dear Mr. Stout:

TRANSFER OF OWNERSHIP AND ASSETS
FROM SHELL OIL COMPANY TO
SHELL WESTERN E&P INC.
STATE OF UTAH

In accordance with our recent conversation, the purpose of this letter is to reduce to writing that Shell Western E&P Inc. ("SWEPI"), a subsidiary of Shell Oil Company, has been formed. Shell Western E&P Inc. is a Delaware corporation with its offices located at 200 North Dairy Ashford Road in Houston, Texas. The mailing address is P. O. Box 831, Houston, TX 77001.

Effective January 1, 1984, Shell Oil Company will transfer portions of its oil and gas operations to Shell Western E&P Inc. and Shell Western E&P Inc. will assume all of the rights, interests, obligations and duties which Shell Oil Company currently has as a result of its exploration, development and production operations in the State of Utah.

As you are aware, Shell Oil Company is currently the holder of various permits and agency authorizations. In view of the fact that Shell Western E&P Inc. will assume all of the liabilities and obligations of Shell Oil Company's exploration and production activities within the state, we respectfully request that you transfer all permits or other authorizations from Shell Oil Company to Shell Western E&P Inc., effective January 1, 1984.

To support this request, a copy of the power of attorney appointing the undersigned as Attorney-in-Fact for Shell Western E&P Inc. is enclosed. On behalf of Shell Western E&P Inc., enclosed are recently issued Bond No. Shell 1835 and Bond No. Shell 1841. The bonds were issued by the Insurance Company of North America. In the near future, I shall request that the existing Shell Oil Company bonds be released.

It is my understanding, pursuant to our prior discussion, that this letter will comply with your requirement regarding the change in the name of the permittee.

Sufficient copies of this letter are being provided to your office so that a copy can be placed in each appropriate file. A listing of active wells is enclosed. Thank you in advance for your cooperation in this matter.

Yours very truly,

G. M. Jobe

G. M. Jobe
Administrator, Regulatory-Permits
Rocky Mountain Division
Western E&P Operations

GMJ:beb

Enclosures

SRD4278054 18

RECEIVED

OCT 02 1984

DIVISION OF OIL GAS & MINING

4241 State Office Building: Salt Lake City, Ut. 84114 ● 801-533-5771

MONTHLY OIL AND GAS PRODUCTION REPORT

Operator name and address:

UTEX OIL CO.
% SHELL WESTERN E&P INC.

[redacted]
PO BOX 576
HOUSTON TX 77001
ATTN: [redacted] OIL ACCT.

Operator change

Utah Account No. N0840

Report Period (Month/Year) 8 / 84

Amended Report ☐

Well Name API Number Entity Location	Producing Zone	Days Oper	Production Volume Oil (BBL)	Gas (MSCF)	Water (BBL)
BROTHERSON 1-03B4 4301330048 01525 02S 04W 3	WSTC	23	317	251	403
MURDOCK 1-26B5 4301330049 01530 02S 05W 26	GR-WS	28	1584	2747	6039
BROTHERSON 1-14B4 4301330051 01535 02S 04W 14	GR-WS	31	868	2489	3914
BROTHERSON 1-11B4 4301330052 01540 02S 04W 11	GR-WS	26	1591	3090	9480
CHRISTENSEN 1-33A5 4301330054 01545 01S 05W 33	GR-WS	31	858	70	1060
EVANS UNIT 1-31A4 4301330067 01560 01S 04W 31	GR-WS	31	2431	0	10702
BLEAZARD 1-18B4 4301330059 01565 02S 04W 18	WSTC	23	568	581	3422
BROTHERSON 1-02B4 4301330062 01570 02S 04W 2	GR-WS	0	0	0	0
ROSI 1-4B3 4301330063 01575 02S 03W 4	GR-WS	21	567	304	1178
UTE UNIT 1-36A4 4301330069 01580 01S 04W 36	WSTC	22	2753	3538	907
UTE UNIT 1-34A4 4301330075 01585 01S 04W 34	GR-WS	22	486	794	182
MONSEN 1-21A3 4301330082 01590 01S 03W 21	GR-WS	24	646	2264	5926
BROADHEAD 1-21B6 4301330100 01595 02S 06W 21	WSTC	31	1442	1685	455
	TOTAL		14112	17931	57128

JT - 2

Comments (attach separate sheet if necessary)

I have reviewed this report and certify the information to be accurate and complete. Date Sep 28, 1984

Authorized signature [redacted]

Telephone 801-484-2262

Form OGC-1b

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUBMIT IN TRIPLICATE (Other instructions on reverse side) 010985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR
ANR Limited Inc.

3. ADDRESS OF OPERATOR
P. O. Box 749, Denver, Colorado 80201-0749

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
See attached list

RECEIVED
DEC 31 1986
DIVISION OF
OIL GAS & MINING

5. LEASE DESIGNATION AND SERIAL NO.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Brotherson

9. WELL NO.
1-11B4

10. FIELD AND POOL, OR WILDCAT

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec 11 2s 4w

12. COUNTY OR PARISH
Duchesne

13. STATE

14. PERMIT NO.
43-013-30052

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			[ ]
(Other) -Change Operator			[X]	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

ANR Limited has been elected successor Operator to Utex Oil Company on the oil wells described on the attached Exhibit "A".

18. I hereby certify that the foregoing is true and correct

SIGNED Jon K. Nelson TITLE Dist. Land Mgr. DATE 12/24/86

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

DOGM 56-64-21
an equal opportunity employer

UTAH
NATURAL RESOURCES
Oil, Gas & Mining

355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Ut
84180-1203. ● (801-538-5340)

MONTHLY OIL AND GAS PRODUCTION REPORT

Operator name and address: N0675

● ANR LIMITED INC./COASTAL
P O BOX 749
DENVER CO 80201 0749
ATTN: RANDY WAHL

Utah Account No. N0235

Report Period (Month/Year) 11 / 87

Amended Report ☐

Well Name API Number Entity Location	Producing Zone	Days Oper	Production Volume Oil (BBL)	Gas (MSCF)	Water (BBL)
BROTHERSON 1-3B4 4301330048 01525 02S 04W 3	GRRV				
MURDOCK 1-26B5 4301330049 01530 02S 05W 26	GR-WS				
MURDOCK #2-26B5 4301331124 01531 02S 05W 26	WSTC				
BROTHERSON 1-14B4 4301330051 01535 02S 04W 14	GR-WS				
BROTHERSON 1-11B4 4301330052 01540 02S 04W 11	GR-WS				
BROTHERSON #2-11B4 4301331078 01541 02S 04W 11	WSTC				
CHRISTENSEN 1-33A5 4301330054 01545 01S 05W 33	GR-WS				
BLEAZARD 1-18B4 4301330059 01565 02S 04W 18	WSTC				
BLEAZARD #2-18B4 4301331025 01566 02S 04W 18	WSTC				
BROTHERSON 1-02B4 4301330062 01570 02S 04W 2	GR-WS				
RUST 1-4B3 4301330063 01575 02S 03W 4	GR-WS				
RUST #2-36A4 4301331092 01577 01S 04W 36	WSTC				
UTE UNIT 1-36A4 4301330069 01580 01S 04W 36	WSTC				
	TOTAL				

Comments (attach separate sheet if necessary) _____

I have reviewed this report and certify the information to be accurate and complete. Date _____

Telephone _____

Authorized signature

PLEASE COMPLETE FORMS IN BLACK INK

ANR

ANR Production Company
a subsidiary of The Coastal Corporation

01212

RECEIVED
JAN 25 1988

DIVISION OF
OIL, GAS & MINING

January 19, 1988

Natural Resources
Oil, Gas & Mining
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Attention: Ms. Lisha Romero

N0235

This letter includes the information you requested on January 12, 1988 concerning the recent merger of ANR Limited, Inc. into ANR Production Company. Effective December 31, 1987 (December, 1987 Production), ANR Limited, Inc. merged into ANR Production Company; and henceforth, will continue operations as ANR Production Company.

N0675

ANR Production Company will begin reporting and remitting the Utah Conservation and Occupation Taxes effective December, 1987 production for leases previously reported by ANR Limited, Inc. (Utah Account No. N-7245). ANR Production Company will use the new Utah Account No. N-0675, as assigned by the State of Utah.

Please contact me at (713) 877-6167 if I can answer any questions on this matter.

Very truly yours,

Roger W Sparks

Roger W. Sparks
Manager, Crude Revenue Accounting

The computer shows the ANR Limited wells listed under account no. N0235.
DTS
1-26-88

CC: AWS

CTE:mmw

Lisha,
I don't see any problem w/this. I gave a copy to Arlene so she could check on the bond situation. She didn't think this would affect their bond as the bond is set up for Coastal and its subsidiaries (ANR, etc.) No Entity Number changes are necessary. DTS 1-26-88

Form 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

6. Lease Designation and Serial Number: Fee

7. Indian Allottee or Tribe Name: N/A

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT — for such proposals.

8. Unit or Communitization Agreement: CA #9623

1. Type of Well: [XX] Oil Well [ ] Gas Well [ ] Other (specify)

9. Well Name and Number: Brotherson #1-11B4

2. Name of Operator: ANR Production Company

10. API Well Number: 43-013-30052

3. Address of Operator: P. O. Box 749 Denver, CO 80201-0749

4. Telephone Number: (303) 573-4476

11. Field and Pool, or Wildcat: Altamont

5. Location of Well
Footage: 1520' FNL & 1320' FEL
QQ, Sec., T., R., M.: S½NE¼ Section 11, T2S-R4W
County: Duchesne
State: UTAH

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
[ ] Abandonment	[ ] New Construction	[ ] Abandonment *	[ ] New Construction
[ ] Casing Repair	[ ] Pull or Alter Casing	[ ] Casing Repair	[ ] Pull or Alter Casing
[ ] Change of Plans	[ ] Recompletion	[ ] Change of Plans	[ ] Shoot or Acidize
[ ] Conversion to Injection	[ ] Shoot or Acidize	[ ] Conversion to Injection	[ ] Vent or Flare
[ ] Fracture Treat	[ ] Vent or Flare	[ ] Fracture Treat	[ ] Water Shut-Off
[ ] Multiple Completion	[ ] Water Shut-Off	[XX] Other Annual Status Report	
[ ] Other			

Approximate Date Work Will Start: _____

Date of Work Completion: _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

The above referenced well is shut-in due to collapsed casing. This well is a future workover candidate.

RECEIVED
MAR 19 1992
DIVISION OF
OIL GAS & MINING

14. I hereby certify that the foregoing is true and correct

Name & Signature: Eileen Danni Dey (Eileen Danni Dey) Title: Regulatory Analyst Date: 3/16/92

(State Use Only)

FORM 9

STATE OF UTAH

DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number:	Fee
6. If Indian, Allottee or Tribe Name:	N/A
7. Unit Agreement Name:	CA #9623
8. Well Name and Number:	Brotherson #1-11B4
9. API Well Number:	43-013-30052
10. Field and Pool, or Wildcat:	Altamont

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well: OIL [X] GAS [ ] OTHER:

2. Name of Operator: ANR Production Company

3. Address and Telephone Number: P. O. Box 749 Denver, CO 80201-0749 (303) 573-4476

4. Location of Well

Footages: 1520' FNL & 1320' FEL County: Duchesne

QQ, Sec., T., R., M.: S½/NE¼ Section 11, T2S-R4W State: Utah

11. **CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
[ ] Abandonment	[ ] New Construction	[ ] Abandonment *	[ ] New Construction
[ ] Casing Repair	[ ] Pull or Alter Casing	[ ] Casing Repair	[ ] Pull or Alter Casing
[ ] Change of Plans	[ ] Recompletion	[ ] Change of Plans	[ ] Shoot or Acidize
[ ] Conversion to Injection	[ ] Shoot or Acidize	[ ] Conversion to Injection	[ ] Vent or Flare
[ ] Fracture Treat	[ ] Vent or Flare	[ ] Fracture Treat	[ ] Water Shut-Off
[ ] Multiple Completion	[ ] Water Shut-Off	[X] Other Annual Status Report	
[ ] Other			

Approximate date work will start _____

Date of work completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

The above referenced well is shut-in due to collapsed casing. This well is a possible P&A candidate.

RECEIVED

FEB 16 1993

DIVISION OF
OIL, GAS & MINING

13.

Name & Signature: Eileen Danni Dey Title: Regulatory Analyst Date: 2/11/93

Eileen Danni Dey

(This space for State use only)

(12\92)

(See Instructions on Reverse Side)

FORM 9

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

RECEIVED
MAR - 2 1995
DIV OF OIL, GAS & MINING

5. Lease Designation and Serial Number: Patented

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name: Brotherson et al Unit

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well: OIL [X] GAS [ ] OTHER:

8. Well Name and Number: Brotherson #1-11B4

2. Name of Operator: ANR Production Company

9. API Well Number: 43-013-30052

3. Address and Telephone Number: P.O. Box 749, Denver, CO 80201-0749 (303) 573-4476

10. Field and Pool, or Wildcat: Altamont

4. Location of Well

Footages: 1520' FNL & 1320' FEL

County: Duchesne

QQ, Sec., T., R., M.: C NE Section 11-T2S-R4W

State: Utah

11. **CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

NOTICE OF INTENT (Submit In Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
[X] Abandon	[ ] New Construction	[ ] Abandon *	[ ] New Construction
[ ] Repair Casing	[ ] Pull or Alter Casing	[ ] Repair Casing	[ ] Pull or Alter Casing
[ ] Change of Plans	[ ] Recompletion	[ ] Change of Plans	[ ] Perforate
[ ] Convert to Injection	[ ] Perforate	[ ] Convert to Injection	[ ] Vent or Flare
[ ] Fracture Treat or Acidize	[ ] Vent or Flare	[ ] Fracture Treat or Acidize	[ ] Water Shut-Off
[ ] Multiple Completion	[ ] Water Shut-Off	[ ] Other	
[ ] Other			

Approximate date work will start: Upon Approval

Date of work completion:

Report results of **Multiple Completions** and **Recompletions** to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Please see the attached procedure to P&A the subject well.

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 3/6/95
BY: [illegible]

Tag plug @ casing stub. Add 100' cmt. plug @ ± 4500' to ± 4600' base of moderately saline water. Notify DOGM 24 hrs prior to work

13.

Name & Signature: N.O. Shiflett

N.O. Shiflett
Title: District Drilling Manager Date: 02/28/95

(This space for State use only)

(5/94) (See Instructions on Reverse Side)

BROTHERSON #1-11B4

Sec. 11-T2S-R4W
Altamont Field
Duchesne County, Utah

PROCEDURE:

1. MIRU PU. Kill well w/BW. NDWH NUBOP.

2. RIH w/8.5" tapered mill, BS, jars, DC's on 2-7/8" HD workstring. Mill out possible scale rings @ 5878'. CO to top of casing collapse @ 5916'. POOH.

3. RIH w/6" swage, BS, jars, DC's on 2-7/8" HD workstring. Work thru casing collapse. Attempt to swage out to drift @ 8.525.

4. RIH w/tapered mill. CO to 8550'. TOC is @ 8125' (CBL dated 8/14/71).

5. RIH w/cmt retainer on wireline. Set retainer @ 8540'.

6. RIH w/stinger on 2-7/8" HD workstring. Sting into retainer. Sqz w/140 sx per cmt rec. Displ to within 8 bbls of retnr. (Leave 100' cmt plug above retnr.) Sting out, PUH. Attempt to rev tbg clean. POOH.

7. MIRU Wireline Co. Run free pt on 9-5/8" csg. RIH w/chem cutter. Cut csg above 6502'. POOH w/csg.

8. RIH w/2-7/8" tbg. MIRU Halliburton. Spot 210 sx cmt plug from 6700'-6300'. PUH, circ hole w/9# mud. PUH, spot 71 sx plug @ surface. POOH w/tbg.

9. P & A well.

BROTHERSON #[redacted]1B4
SEC. 11-T2S-R4W
ALTAMONT FIELD
DUCHESNE COUNTY, UTAH

WELL DATA

Location: 1520' FNL 1320' FEL

Total Depth: 17,766' 14,680' PBTD CIBP

Casing: 13-3/8" 68# K-55 ST&C set @ 6502', cmt'd w/1800 sx. DV @ 763

9-5/8" 47# S-95 & P-110 LT&C set @ 11,599', cmt'd w/595 sx. Did not bump plug.

7-5/8" 39# S-95 hydrill set liner @ 15,433', cmt'd w/680 sx. Tied back to 10,340' (5-2-79), cmt'd w/95 sx.

TUBULAR DATA

Description	ID	Drift	Capacity (BPF)	Burst (PSI)	Collapse (PSI)
13-3/8" 68# K-55 ST&C	12.415	12.259	.1497	3,450	1,950
9-5/8" 47# S-95 LT&C	8.681	8.525	.0732	8,150	5,080
9-5/8" 47# P-110 LT&C	8.681	8.525	.0732	9,440	5,310
7-5/8" 39# S-95	6.625	6.50	.0426	10,900	9,980

Perforated Interval: 10,783'-14,530' 1164 holes

WELL HISTORY

08/17/71 Perforated 14,746'-14,756' w/2" tbg gun loaded w/2 JSPF. No fluid. Set CIBP @ 14,680'.

11/14/71 Set Model D @ 11,000'. Perforated 14,530'-11,609' 267' w/2" tbg gun 2 JSPF. IP'd 1512 BO; 65 BW; 2316 MCF; FTP 850 psi; 31/64" chk.

06/09/72 Acidized well with 55,000 gals 15% HCl w/800 RCNBS. ATR 9.5 BPM ATP 6200 psi ISIP 2500 psi.
Prod. Prior: 537 BO, 102 BW, 1057 MCF, 675 FTP
Prod. After: 523 BO, 0 BW, 803 MCF, 2900 FTP

03/01/77 Converted to gas lift.
Prod. Prior: 184 BO, 231 BW, 169 MCF,
Prod. After: 490 BO, 896 BW, 850 MCF GL

06/25/79 Milled out casing collapse from 10,677'-10,689'. Milled up Model D @ 11,000'. Tied back 7-5/8" csg to 10,374'. Cmt'd w/95 sx. CO to 13,927'. Perforated 12,539'-13,794' w/4" gun and 3 JSPF 177 holes & 11,654'-12,528' 176 holes. Set pkr @ 11,471'. Acidized 11,609'-14,530' with 55,000 gals 7-1/2%. ATP 7000 ATR 15 BPM ISIP 3000 psi. Set Model D @ 10,350'.
Prod. Prior: SI
Prod. After: 323 BO, 490 BW, 1031 MCF GL

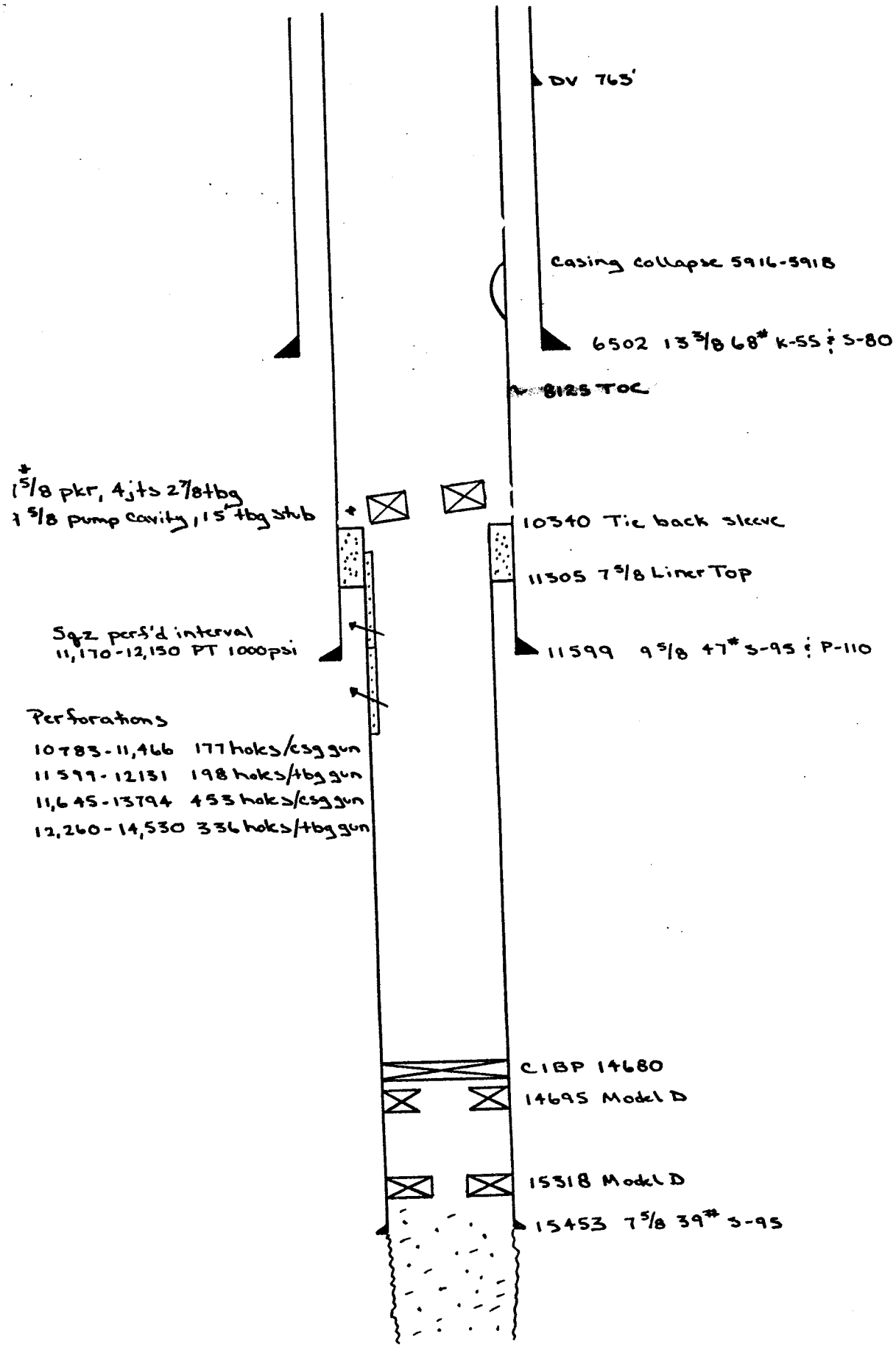
WELL HISTORY - Continued

01/30/80	Milled up pkr @ 10,350'. Set CIBP @ 11,509' added perfs from 10,783'-11,466' (177 holes 4" csg gun). Set Model D @ 10,396'. Acidized perfs from 10,783'-11,466' w/20,000 gals 7-1/2% HCl w/180 RCNBS. ATP 6800 ATR 11 BPM ISIP vacuum. Ran tracer all zones took acid. Some acid lost @ 10,660'. Milled up Model D @ 10,396'. CO to 14,154'. Set uni-pkr @ 10,300'. Return to production.
11/09/82	DO scale from 11,340'-12,580'. CO to 14,321'. Set 32-A pkr @ 10,703'. Acidized perfs from 10,783'-13,815' w/35,000 gals 15% HCl. ATP 7915 ATR 14 BPM. Sqz w/scale inhibitor SP-237. **Prod. Prior:** 69 BO, 372 BW, 127 MCF **Prod. After:** 498 BO, 551 BW, 1230 MCF GL
02/25/86	CO to 13,100'. No scale. Set CIBP 12,150'. Set retnr @ 12,050'. Sqz w/15.5 bbls cmt. DO. Set CIBP @ 11,215'. Set retnr @ 11,172'. Sqz w/15 bbls cmt. DO to 11,210'. Set retnr @ 11,170'. Sqz w/100 sx. DO to 11,212'. PT sqz from 11,170'-11,215' to 1000 psi. CO to 12,150'. PT sqz from 12,050'-12,150' to 1000 psi. CO to 13,100'. Set pkr @ 10,390'. Conv. to hydraulic (4-10-86). **Prod. Prior:** 45 BO, 308 BW, 35 MCF **Prod. After:** 23 BO, 135 BW, 25 MCF
05/15/86	Rlsd pkr. PUH hit csg collapse. Cut tbg @ 10,183' 15' above pump cavity. Ran 4" GR. Could not go thru collapse @ 5895'. Ran thru w/3-5/8" GR. Had hard time getting back thru. Ran csg caliper log from 5896'-2969'. Log showed csg collapse dn to 5902' from 5894'. SI well.
08/05/94	Ran Halliburton camera. Showed csg collapse from 5916'-5918'.

PRESENT STATUS

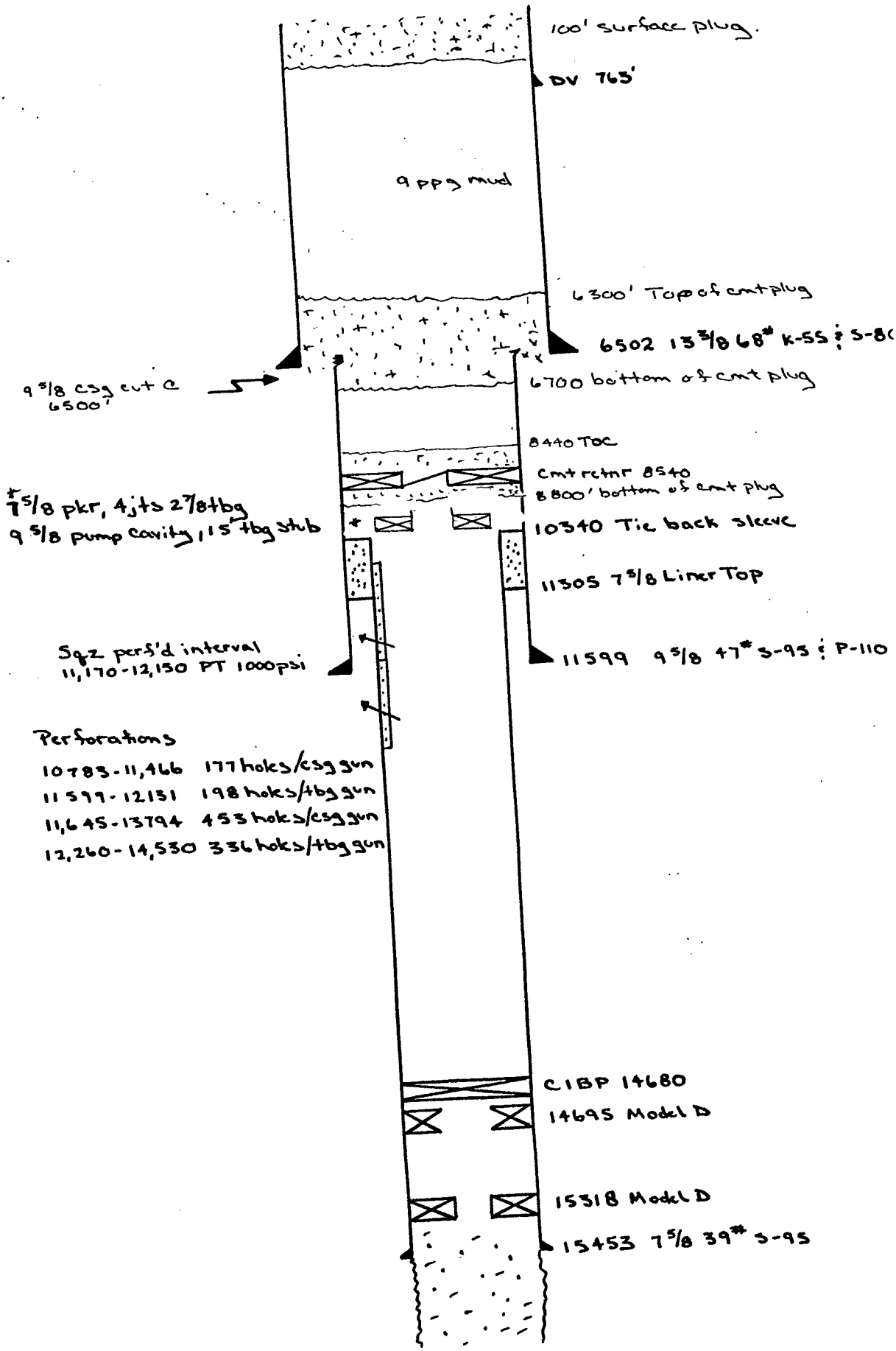
SI

Brotherson 1-11 B4



Brotherson 1-11 B4

Proposed P & A schematic
2/17/15 SLR



(4)

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
WORKOVER AND COMPLETION RECORD

OPERATOR: ANR PRODUCTION COMPANY COMPANY REP: JIM FOREMAN

WELL NAME: BROTHERSON # 1-11B4 API NO: 43-013-30052

SECTION: 11 TWP: 02S RANGE: 04W COUNTY: DUCHESNE

TYPE OF WELL: OIL: YES GAS: _____ WATER INJECTION: _____

STATUS PRIOR TO WORKOVER: SOW

INSPECTOR: DENNIS L. INGRAM TIME: 3:35 PM DATE: 5/12/95

REASON FOR WORKOVER:

CHANGE OF LIFT SYSTEM: _____ PUMP CHANGE: _____ PARTED RODS: P&A

CASING OR LINER REPAIR: _____ ACIDIZE: _____ RECOMPLETION: _____

TUBING CHANGE: _____ WELLBORE CLEANOUT: _____ WELL DEEPENED: _____

ENHANCED RECOVERY: _____ THIEF ZONE: _____ CHANGE ZONE: _____

ENVIRONMENTAL/DISPOSITION OF FLUIDS USED:

PIT: LINED ___ UNLINED ___ FRAC TANK (1) BOPE: Y H2S PRESENT: N

OPERATIONS AT THE TIME OF INSPECTION: POOH WITH TUBING & MILL

REMARKS:
START IN HOLE WITH WIRE LINE RETAINER AT 4:51 PM. NO GO PAST 5891. WILL RETRIEVE RETAINER AND RUN A TUBING SET NEXT WEEK.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
RECORD OF ABANDONMENT OPERATIONS

COMPANY NAME: ANR PRODUCTION COMPANY

WELL NAME: BROTHERSON #1-11B4

QTR/QTR: C/NE SECTION: 11 TOWNSHIP: 02S RANGE: 04W

COUNTY: DUCHESNE API NO: 43-013-30052

INSPECTOR: DENNIS L. INGRAM TIME: 7:00 AM DATE: 5/18/95

SURFACE CASING SHOE DEPTH 6502 FEET CASING PULLED YES____ NO N

CASING PULLED: SIZE N/A CUT DEPTH N/A FT/CSG RECOVERED N/A

CASING TESTED YES____ NO N TESTED TO: N/A PSI TIME: N/A MIN:

CEMENTING COMPANY: HALLIBURTON CEMENTING

CEMENTING OPERATIONS: P&A WELL: Y

PLUG 1. SET: FROM 6492' FT. TO 6845' FT. TAGGED YES___ NO NO

SLURRY: 91.2 BBLS HLC (260 SXS) @ 12.4PPG +29.4 BBLS 'G' (140 SXS) @15.6PPG

PLUG 2. SET FROM 6375' FT. TO 5659' FT. TAGGED YES___ NO NO

SLURRY: 52 BBLS (200 SXS) 'G' @ 15.6PPG (10 bbls left on top). YIELD 1.18

PLUG 3. SET FROM 4600' FT. TO 4467' FT. TAGGED YES___ NO NO

SLURRY: 10.3 BBLS (50 SXS) 'G' ACROSS SALINE ZONE. SAME AS PLUG #2.

PLUG 4. SET FROM 100' FT. TO 0' FT. TAGGED YES___ NO N

SLURRY: 7.5 BBLS 'G' @ 15.6PPG. BETWEEN 9 5/8 & 13 3/8" CASING

SURFACE PLUG: FROM 100' FT. TO 0' FT.

ALL ANNULUS CEMENTED TO SURFACE: YES YES NO_____

PLUGGING FLUID TYPE: 9.0 PPG MUD

PERFORATIONS: FROM 10,783 FT. TO 14,530 FT.
FROM FT. TO FT.

1 CIBP SET: 6960 FEET

2 CIBP SET: 5802 FEET

ABANDONMENT MARKER: PLATE: YES PIPE: _____ CORRECT INFORMATION: Y

COMMENTS: OPERATOR WAS UNABLE TO REACH RETAINER POINT AT 6550. SET RETAINER HIGH AND FILL 9 5/8" WITH CEMENT DOWN BELOW KNOWN CEMENT TOP (6100'). HOLE STOOD FULL AFTER CEMENT SURFACE PLUG WAS SET W/1 INCH.

FORM 9

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number: Patented

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name: Brotherson et al Unit

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well: OIL [X] GAS [ ] OTHER:

8. Well Name and Number: Brotherson #1-11B4

2. Name of Operator: ANR Production Company

9. API Well Number: 43-013-30052

3. Address and Telephone Number: P.O. Box 749, Denver, CO 80201-0749 (303) 573-4476

10. Field and Pool, or Wildcat: Altamont

4. Location of Well

Footages: 1520' FNL & 1320' FEL

QQ, Sec., T., R., M.: C NE Section 11-T2S-R4W

County: Duchesne

State: Utah

11. **CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

NOTICE OF INTENT (Submit In Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
[ ] Abandon	[ ] New Construction	[X] Abandon *	[ ] New Construction
[ ] Repair Casing	[ ] Pull or Alter Casing	[ ] Repair Casing	[ ] Pull or Alter Casing
[ ] Change of Plans	[ ] Recompletion	[ ] Change of Plans	[ ] Perforate
[ ] Convert to Injection	[ ] Perforate	[ ] Convert to Injection	[ ] Vent or Flare
[ ] Fracture Treat or Acidize	[ ] Vent or Flare	[ ] Fracture Treat or Acidize	[ ] Water Shut-Off
[ ] Multiple Completion	[ ] Water Shut-Off	[ ] Other	
[ ] Other			

Approximate date work will start

Date of work completion 5/19/95

Report results of **Multiple Completions** and **Recompletions** to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Please see the attached chronological history of the P & A operation.

RECEIVED
SEP 05 1995
DIV. OF OIL, GAS & MINING

13.

Name & Signature: Bonnie Johnston

Title: Senior Environmental Analyst

Date: 08/30/95

(This space for State use only)

(5/94)

(See Instructions on Reverse Side)

ANR PRODUCTION COMPANY
CHRONOLOGICAL HISTORY

BROTHERSON #1-11B4 (P&A)
ALTAMONT FIELD
DUCHESNE COUNTY, UTAH
WI: 75.0% ANR AFE: 00659
TD: 17,776'
CWC(M$): 96.0

5/8/95 Finish RIH w/2⅞" tbg.
MIRU Basin rig #5. ND WH, NU BOP. RIH w/3-bladed 8½" mill, 6 - 4¾" DC's & 135 jts 2⅞" tbg to 4520'. CC: $5,388

5/9/95 RIH w/5½" swage.
Continue RIH w/44 jts 2⅞" tbg, tag @ 5910' - felt like scale. RU swivel. Made 8" to csg collapse. RD swivel. POOH w/179 jts 2⅞" tbg, 6 - 4¾" DC's & 8½" mill. LD mill. RIH w/5" csg swage, bumper sub, super jar, 6 - 4¾" DC's, pup jt & 179 jts 2⅞" tbg. Tag @ 5910'. Work 5" swage thru csg collapse. POOH w/2⅞" tbg & BHA. LD 5" swage. RIH w/5½" swage, bumper sub, jars, 10 - 4¾" DC's, pup jt & 2 jts 2⅞" tbg. CC: $10,624

5/10/95 Finish RIH w/7½" swage.
RIH w/173 jts 2⅞" tbg, tag @ 5910'. Swage thru csg collapse. POOH w/175 jts 2⅞" tbg & BHA. LD 5½" swage. RIH w/6⅛" swage, bumper sub, jar, 10 - 4¾" DC's, pup jt & 175 jts 2⅞" tbg. Tag @ 5910'. Work 6⅛" swage thru collapse. POOH w/175 jts tbg & BHA. LD 6⅛" swage. RIH w/7½" swage, bumper sub, jar, 10 - 4¾" DC's, pup jt & 60 jts 2⅞" tbg. CC: $15,860

5/11/95 Finish POOH w/8½" swage.
Finish RIH w/115 jts 2⅞" tbg. Tag @ 5910'. Swage csg w/7½" swage. POOH w/175 jts 2⅞" BHA. LD 7½" swage. RIH w/8½" swage, bumper sub, jar, 10 - 4¾" DC's, pup jt & 175 jts 2⅞" tbg. Tag @ 5910'. Work 8½" swage thru csg collapse for 3½ hrs. POOH w/70 jts 2⅞" tbg. CC: $21,302

5/12/95 RIH w/8½" csg swage.
Finish POOH w/105 jts 2⅞" tbg & BHA. LD 8½" swage. RIH w/8½" mill, bumper sub, jar, 10 - 4¾" DC's, pup jt & 2⅞" tbg. Work mill thru bad spot in csg @ 5910'. RIH w/8½" mill to 8620'. POOH w/127 jts 2⅞" tbg to 5850'. Circ well w/400 bbls. Finish POOH w/2⅞" tbg & BHA. LD 8½" mill. RU Cutters. RIH w/9⅝" cmt retainer - could not get past collapse in csg @ 5910'. POOH & LD cmt retainer. RD Cutters. CC: $29,066

5/13-14/95 SD for weekend.

5/15/95 Hot oil tbg.
RIH w/8½" swage, bumper sub, jar, 10 - 4¾" DC's, pup jt & 175 jts 2⅞" tbg. Tag csg collapse @ 5910'. Work thru bad spot. RIH w/85 jts 2⅞" tbg to 8620'. POOH. Work swage thru collapse @ 5910'. Continue POOH w/260 jts 2⅞" tbg & BHA. LD 8½" swage. RIH w/9⅝" cmt retainer & 2⅞" tbg thru bad spot in @ 5910'. RIH to 6960' - unable to move retainer due to paraffin. Hot oil tbg. CC: $36,502

5/16/95 ND BOP.
Hot oil tbg. Set cmt retainer @ 6960'. RU Halliburton. Est inj rate down csg @ 3.5 BPM @ 2000#. Sqz'd 9⅝" csg w/260 sx Lite cmt (12.4 ppg) & 140 sx Class G (15.6 ppg). Unsting from retainer @ 6960'. Btm of cmt @ 8492', TOC @ 6845'. POOH w/7 jts to 6750'. Reverse circ 40 bbls. POOH w/212 jts 2⅞" & retainer setting tool. LDDC's. CC: $50,383

5/17/95 Circ drlg mud & cmt.
SICP 1400# - blow down. ND BOP, NU WH. RIH w/Halliburton 9⅝" cmt retainer & 181 jts 2⅞" tbg. Set CICR @ 5802'. Pump down tbg, out 13⅜". Est inj rate 2 bbls @ 1000#. CC: $57,131

ANR PRODUCTION COMPANY
CHRONOLOGICAL HISTORY

BROTHERSON #1-11B4 (P&A)
ALTAMONT FIELD
DUCHESNE COUNTY, UTAH
WI: 75.0% ANR AFE: 00659

5/18/95 Dig out cellar, prep to cut off WH.
Circ 380 bbls 9 ppg mud out 13⅜". RU Halliburton. Squeeze w/250 sx Type V (15.6 ppg) cmt w/2% $CaCl_2$. Unsting out of retainer @ 5802'. TOC @ 5659'. LD 7 jts 2⅞" tbg to 5581'. Pump 100 bbls 9 ppg mud. POOH w/30 jts 2⅞" tbg to 4621'. RU Halliburton & pump 50 sx Type V cmt (15.6 ppg) w/10.5 bbls 2% $CaCl_2$. TOC @ 4478', btm of cmt @ 4621'. POOH w/7 jts 2⅞" tbg to 4400'. Circ 350 bbls 9 ppg mud to sfc. POOH & LD tbg & retainer setting tool. ND BOP & spool. CC: $70,341

5/19/95 Well P&A'd.
RDMO rig. Dug cmt out of cellar. Cut off WH. RU 100' - 1" pipe between 9⅝" & 13⅜" csg. Pmpd 6.5 bbls (31 sx) Type V (15.6 ppg) cmt. Pmpd 11 bbls (52 sx) cmt down 9⅝". Weld on dry hole marker. Clean location. P&A witnessed by Dennis Ingram, State of Utah. Well P&A'd 5/19/95 - final report.

0.1

CUSTOMER COPY

INVOICE

HALLIBURTON

REMIT TO:
P.O. BOX 951046
DALLAS, TX 75395-1046

INVOICE NO.	DATE
778873	05/16/199

WELL LEASE NO./PLANT NAME	WELL/PROJECT LOCATION	STATE	
BROTHERSON 1-11 B4	DUCHESNE	UT	SAME

SERVICE LOCATION	CONTRACTOR	JOB PURPOSE	TICKET DATE
VERNAL, UT.	NA	PLUG TO ABANDON	05/16/199

ACCT. NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER	SHIPPED VIA	FILE NO.
001501	CANT READ			COMPANY TRUCK	9045

A N R PRODUCTION CO.
BOX 120
ALTAMONT, UT 84001

DIRECT CORRESPONDENCE TO:
410 17TH ST.
SUITE 900
DENVER, CO 80202-0000

REFERENCE NO.	DESCRIPTION	QUANTITY	UM	UNIT PRICE	AMOUNT
PRICING AREA - WESTERN					
011-100	CEMENT UNIT USED FOR ACID JOB	4	PSI	115.50	115.50
200-024		1	PMP		
009-134	CEMENT SQUEEZE	6000	FT	2,975.00	2,975.00
009-019		1	UNT		
504-118	CEMENT - HALL. LIGHT PREMIUM	260	SK	10.00	2,600.00
504-043	CEMENT - PREMIUM	140	SK	11.22	1,570.80
507-395	HR-5	23	LB	2.95	67.85
500-207	BULK SERVICE CHARGE	526	CFT	1.35	710.10
500-306	MILEAGE CMTG MAT DEL OR RETURN	1373.64	TMI	.95	1,304.96
	INVOICE SUBTOTAL				9,344.21
	DISCOUNT-(BID)				3,270.47-
	INVOICE BID AMOUNT				6,073.74
	*-UTAH STATE SALES TAX				198.16
	*-VERNAL CITY SALES TAX				40.65

94 1499.0024 000.000 00659 7898770 6312.55
ck 5/25/95

1-11B4

x J.D.F. 5-20-95

INVOICE TOTAL - PLEASE PAY THIS AMOUNT ==================> $6,312.55

TERMS: If Customer does not have an approved open account with Halliburton, all sums due are payable in cash at the time of performance of services or delivery of equipment, products or materials. If customer has an approved open account, invoices are payable on the twentieth day after date of invoice. Customer agrees to pay interest on any unpaid balance from the date payable until paid at the highest lawful contract rate applicable, but never to exceed 18% per annum. In the event Halliburton employs an attorney for collection of any account, Customer agrees to pay attorney fees of 20% of the unpaid account, plus all collection and court costs.

FORM HAL-1900-F

PAGE: 1

HALLIBURTON

HALLIBURTON ENERGY SERVICES

HAL-1906-N

CHARGE TO: ANR OIL & GAS

ADDRESS

CITY, STATE, ZIP CODE

TICKET No. 778873 - 7

PAGE 1 OF

SERVICE LOCATIONS	WELL/PROJECT NO.	LEASE	COUNTY/PARISH	STATE	CITY/OFFSHORE LOCATION	DATE	OWNER
1. VERNAL	1-11B4	BROTHERSON	DUCHESNE	UT	ALTAMONT	5/16/95	SAME
2.	TICKET TYPE: ☑ SERVICE ☐ SALES	NITROGEN JOB? ☐ YES ☑ NO	CONTRACTOR	RIG NAME/NO.	SHIPPED VIA HALCO	DELIVERED TO LOCATION	ORDER NO
3.	WELL TYPE	WELL CATEGORY	JOB PURPOSE		WELL PERMIT NO.		WELL LOCATION
4.	01	02	115 PTA				
REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
[illegible]-117					MILEAGE RCM 7061	60	mi	1	UNIT	2 75	115 50
009-134					CEMENT SQUEEZE	8540	FT	1	UNIT	4,250 00	2975 00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY,** and **LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

X

DATE SIGNED 5/16/95 TIME SIGNED 09:15 ☑ A.M. ☐ P.M.

I ☐ do ☐ do not require IPC (Instrument Protection). ☐ Not offered

SUB SURFACE SAFETY VALVE WAS: ☐ PULLED & RETURN ☐ PULLED ☐ RUN

TYPE LOCK	DEPTH
BEAN SIZE	SPACERS
TYPE OF EQUALIZING SUB.	CASING PRESSURE
TUBING SIZE / TUBING PRESSURE / WELL DEPTH	
TREE CONNECTION	TYPE VALVE

SURVEY	AGREE	UN-DECIDED	DIS-AGREE
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?			
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			

ARE YOU SATISFIED WITH OUR SERVICE? ☐ YES ☐ NO

☐ CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL	3,090 50
FROM CONTINUATION PAGE(S)	6,253 71
Book Price	9,344 21
Disc. Amount	3270 17
SUB-TOTAL APPLICABLE TAXES WILL BE ADDED ON INVOICE	6,073 04

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowleges receipt of the materials and services listed on this ticket.

CUSTOMER OR CUSTOMER'S AGENT (PLEASE PRINT)	CUSTOMER OR CUSTOMER'S AGENT (SIGNATURE)	HALLIBURTON OPERATOR/ENGINEER	EMP #	HALLIBURTON APPROVAL
	X	Jeff Weeks	04180	

AS PER BID SHEET

HALLIBURTON

HALLIBURTON ENERGY SERVICES

FORM 1911 R-10

TICKET CONTINUATION

ORIGINAL

TICKET No. 778873

CUSTOMER ANR ~~COASTAL OIL &GAS~~

WELL Bro. 1-11B4

DATE 05/16/95

PAGE OF

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
504-120					HALCO LITE CEMENT	260	SKS			10 00	2600 00
										11.22	
504-050	516.00261			Y	PREMIUM PLUS TYPE V	~~140~~	SKS			XXXXX	1570 80
507-395	890.50077				HR.5 mixed .1%	23	lbs			2.95	67 85
500-207					SERVICE CHARGE 45788	CUBIC FEET ~~240~~		526		1.35	710 10
500-306					MILEAGE CHARGE / TOTAL WEIGHT ~~27503~~ / LOADED MILES 60	TON MILES		1373.64		.95	1304 96

CONTINUATION TOTAL 6253.71

No. B 280320

CUSTOMER COPY

HALLIBURTON

REMIT TO:
P.O. BOX 951046
DALLAS, TX 75395-1046

INVOICE

due 4/7/95

INVOICE NO.	DATE
807980	05/18/199

WELL LEASE NO./PLANT NAME	WELL/PLANT LOCATION	STATE	
BROTHERSON 1-11B4	DUCHESNE	UT	SAME

SERVICE LOCATION	CONTRACTOR	JOB PURPOSE	
VERNAL, UT.	BASIN WELL SERVICE	DRILLABLE TOOL SERVICE	05/18/199

ACCT NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER	SHIPPED VIA	FILE NO.
001501	J D FOREMAN			COMPANY TRUCK	9055

A N R PRODUCTION CO.
P.O. BOX 749
DENVER, CO 80201

DIRECT CORRESPONDENCE TO:
410 17TH ST.
SUITE 900
DENVER, CO 80202-0000

REFERENCE NO.	DESCRIPTION	QUANTITY	UM	UNIT PRICE	AMOUNT
PRICING AREA - WESTERN					
100-115	MILEAGE SPEC. TOOLS ROUND TRIP	60	MI	1.45	87.00
		1	UNT		
94 802.354	EZ DRILL SV SQZ PKR 9 5/8"	1	EA	2,125.00	2,125.00
128-363	EZ DRILL SETTING TOOL			250.00	250.00
	RD 8 HR PER 8 HR	1	EA		
124-050	ENVIRONMENTAL CLEANUP/DISPOSAL	1	ASY	50.00	50.00
102-012	OPERATOR/SPECIALIST SPEC TOOLS	8	HR	45.00	360.00
		1	MAN		
100-115	MILEAGE SPEC. TOOLS ROUND TRIP	60	MI	1.45	87.00
		1	UNT		
102-012	OPERATOR/SPECIALIST SPEC TOOLS	8	HR	45.00	360.00
		1	MAN		
116-434	SETTING TOOL	1	EA	31.25	125.00
		4	HR		

94 1499.002 4000.000 00059 1898T70 294432

INVOICE SUBTOTAL	3,444.00
at 5/24/95 DISCOUNT-(BID)	602.68-
INVOICE BID AMOUNT	2,841.32
*-UTAH STATE SALES TAX	85.47
*-VERNAL CITY SALES TAX	17.53
INVOICE TOTAL - PLEASE PAY THIS AMOUNT	$2,944.32

TERMS: If Customer does not have an approved open account with Halliburton, all sums due are payable in cash at the time of performance of services or delivery of equipment, products or materials. If customer has an approved open account, invoices are payable on the twentieth day after date of invoice. Customer agrees to pay interest on any unpaid balance from the date payable until paid at the highest lawful contract rate applicable, but never to exceed 18% per annum. In the event Halliburton employs an attorney for collection of any account, Customer agrees to pay attorney fees of 20% of the unpaid account, plus all collection and court costs.

HALLIBURTON

HALLIBURTON ENERGY SERVICES

HAL-1906-N

CHARGE TO: ANR

ADDRESS

CITY, STATE, ZIP CODE

ORIGINAL

TICKET No. 807980 - 8

PAGE 1 OF

SERVICE LOCATIONS	WELL/PROJECT NO.	LEASE	COUNTY/PARISH	STATE	CITY/OFFSHORE LOCATION	DATE	OWNER
1. 55685	1-1164	BROTHERSON	DUCHESNE	UT		5-18-95	

2.	TICKET TYPE: ☑ SERVICE ☐ SALES	NITROGEN JOB? ☐ YES ☑ NO	CONTRACTOR: BASIN WELLSER	RIG NAME/NO.	SHIPPED VIA	DELIVERED TO	ORDER NO.
3.	WELL TYPE: 01	WELL CATEGORY	JOB PURPOSE: 667			WELL PERMIT NO.	WELL LOCATION
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
100-115				17.5	MILEAGE	60	mi			1 45	87 00
94	802.354				9 5/8 EZSV	1	EA				2125 00
128-363					SETTING TOOL	1	EA				250 00
124-050					ENVIROMENTAL CLEAN UP & DISPOSAL	1	EA				50 00
102-012					OPERATORS SERVICE	8	HR			45 00	360 00
					5-18						
100-115					MILEAGE	60	mi			1 45	87 00
102-012					OPERATORS SERVICE	8	HR			45 00	360 00
116-434	128-363				SETTING TOOL	4	HR			31 25	125 00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY,** and **LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

X J. D. Foreman AFE

DATE SIGNED: 5-17-95 TIME SIGNED: 1230 ☐ A.M. ☐ P.M.

☐ I ☐ do ☐ do not require IPC (Instrument Protection). ☐ Not offered

SUB SURFACE SAFETY VALVE WAS: ☐ PULLED & RETURN ☐ PULLED ☐ RUN

TYPE LOCK	DEPTH
BEAN SIZE	SPACERS
TYPE OF EQUALIZING SUB.	CASING PRESSURE
TUBING SIZE / TUBING PRESSURE / WELL DEPTH	
TREE CONNECTION	TYPE VALVE

SURVEY	AGREE	UN-DECIDED	DIS-AGREE
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?			
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?.			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			

ARE YOU SATISFIED WITH OUR SERVICE? ☐ YES ☐ NO

☐ CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL	$ 3444 00
FROM CONTINUATION PAGE(S)	$ 602 68
	17.5
SUB-TOTAL APPLICABLE TAXES WILL BE ADDED ON INVOICE	$ 2841 32

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowleges receipt of the materials and services listed on this ticket.

CUSTOMER OR CUSTOMER'S AGENT (PLEASE PRINT)	CUSTOMER OR CUSTOMER'S AGENT (SIGNATURE)	HALLIBURTON OPERATOR/ENGINEER	EMP #	HALLIBURTON APPROVAL
	X J. D. Foreman	R. C. Ripple	52364	

CUSTOMER COPY

HALLIBURTON

P.O. BOX 731046
DALLAS, TX 75395-104

INVOICE

778874 05/19/

WELL NO.	WELL/PROJECT LOCATION	STATE	
BROTHERSON 1-1184	DUCHESNE	UT	SAME

SERVICE LOCATION	CONTRACTOR	JOB PURPOSE	TICKET DATE
VERNAL, UT.	WESTERN WELL SERVICE	PLUG TO ABANDON	05/19/

ACCT NO.	CUSTOMER REP	VENDOR NO.	CUSTOMER P.O. NUMBER	
171068	J D FOREMAN			COMPANY TRUCK

COASTAL OIL AND GAS
P. O. BOX 749
DENVER, CO 80201

DIRECT CORRESPONDENCE TO:
410 17TH ST.
SUITE 900
DENVER, CO 80202-0000

REFERENCE NO.	DESCRIPTION	QUANTITY	U/M	UNIT PRICE	AMOUNT
PRICING AREA - WESTERN					
000-117	MILEAGE CEMENTING ROUND TRIP	60	MI	2.75	165.(
		1	UNT		
009-019	PLUGGING BK SPOT CEMENT OR MUD	5500	FT	2,800.00	2,800.(
		1	UNT		
019-000	ADDITTIONAL HR	1	UNT	300.00	1,200.(
		4	HR		
000-119	MILEAGE FOR CREW	60	MI	1.45	87.(
		1	UNT		
019-000	ADDITIONAL HR	5	HR	300.00	1,500.(
504-043	CEMENT - PREMIUM	250	SK	11.22	2,805.(
509-406	ANHYDROUS CALCIUM CHLORIDE	5	SK	44.55	222.7
504-043	CEMENT - PREMIUM	130	SK	11.22	1,458.6
509-406	ANHYDROUS CALCIUM CHLORIDE	28	SK	44.55	1,247.4
500-207	BULK SERVICE CHARGE	379	CFT	1.35	511.6
500-306	MILEAGE CMTG MAT DEL OR RETURN	1265	TMI	.95	1,220.7
	INVOICE SUBTOTAL				13,218.1
	DISCOUNT-(BID)				3,965.4
	INVOICE BID AMOUNT				9,252.7
	*-UTAH STATE SALES TAX				254.7
	*-VERNAL CITY SALES TAX				52.2

94 1499.0024 000.000 00659 7898770 9559.77
dt 5/26/95

INVOICE TOTAL -- PLEASE PAY THIS AMOUNT ==========> $9,559.7

AFFIX JOB TKT

TERMS: If Customer does not have an approved open account with Halliburton, all sums due are payable in cash at the time of performance of services or delivery of equipment, products or materials. If customer has an approved open account, invoices are payable on the twentieth day after date of invoice. Customer agrees to pay interest on any unpaid balance from the date payable until paid at the highest lawful contract rate applicable, but never to exceed 18% per annum. In the event Halliburton employs an attorney for collection of any account, Customer agrees to pay attorney fees of 20% of the unpaid account, plus all collection and court costs.

FORM HAL-1900-F

HALLIBURTON

HALLIBURTON ENERGY SERVICES

FORM 1911 R-10

TICKET CONTINUATION

ORIGINAL

TICKET No. 778874

CUSTOMER	WELL	DATE	PAGE	OF
ANR PROD.	BRO. 1-17 B4	05/18/95	2	2

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
504-050	516.00261				PREMIUM PLUS TYPE V	250	sk			11.22	2805.00
509-406	890.50812				CALCIUM CHLORIDE 2%	5	sk			44.55	222.75
504-050	516.00261				PREMIUM PLUS TYPE V	130	sk			11.22	1458.60
509-406	890.50812				Calcium Chloride (on side)	29	sk			44.55	1247.40
500-207					SERVICE CHARGE	CUBIC FEET 379				1.35	511.65
500-306					MILEAGE CHARGE / TOTAL WEIGHT ~~34,859~~ 42850 / LOADED MILES 60	TON MILES 1285				.95	1220.75

CONTINUATION TOTAL 7466.15

No. B 280324

HALLIBURTON

HALLIBURTON ENERGY SERVICES

HAL-1906-N

CHARGE TO: COASTAL OIL & GAS

ADDRESS

CITY, STATE, ZIP CODE

ORIGINAL

TICKET No. 778874 - 8

PAGE 1 OF 2

SERVICE LOCATIONS	WELL/PROJECT NO.	LEASE	COUNTY/PARISH	STATE	CITY/OFFSHORE LOCATION	DATE	OWNER
1. VERNAL	1-1184	BROTHERSON	DUCHESNE	UT	ALTAMONT	5/18/95	
2.	TICKET TYPE: ☑ SERVICE ☐ SALES — NITROGEN JOB? ☐ YES ☑ NO	CONTRACTOR: WESTERN WELL	RIG NAME/NO.	SHIPPED VIA: HALCO	DELIVERED TO: LOCATION	ORDER NO.	
3.	WELL TYPE: 01	WELL CATEGORY: 02	JOB PURPOSE: 115		WELL PERMIT NO.	WELL LOCATION	
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
000-117					MILEAGE RCAA 7061	60	MI			2 75	165 00
009-019					SQUEEZING CEMENT	5802	FT	1	EA	2800 00	2800 00
019-000					ADDITIONAL HOURS 5/19/95	4	EA			300 00	1200 00
										45	
000-119					Crew Mileage	60	mi			1 35	81 —
019-000					Additional Hours	5	HRS				1500 —

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MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

X J.D. Foreman

DATE SIGNED: 5-18-95 TIME SIGNED: 9:00 ☑ A.M. ☐ P.M.

I ☐ do ☐ do not require IPC (Instrument Protection). ☐ Not offered

SUB SURFACE SAFETY VALVE WAS: ☐ PULLED & RETURN ☐ PULLED ☐ RUN

TYPE LOCK	DEPTH
BEAN SIZE	SPACERS
TYPE OF EQUALIZING SUB.	CASING PRESSURE
TUBING SIZE / TUBING PRESSURE / WELL DEPTH	
TREE CONNECTION	TYPE VALVE

SURVEY	AGREE	UN-DECIDED	DIS-AGREE
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?			
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			

ARE YOU SATISFIED WITH OUR SERVICE? ☐ YES ☐ NO

☐ CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL	5746 —
FROM CONTINUATION PAGE(S)	7466 15
Book =	13218 15
(30 Discount)	-3965 43
SUB-TOTAL APPLICABLE TAXES WILL BE ADDED ON INVOICE	9252 72

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowleges receipt of the materials and services listed on this ticket.

CUSTOMER OR CUSTOMER'S AGENT (PLEASE PRINT)	CUSTOMER OR CUSTOMER'S AGENT (SIGNATURE)	HALLIBURTON OPERATOR/ENGINEER	EMP #	HALLIBURTON APPROVAL
	X J.D. Foreman ARE	Jeff Weeks		